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TEMA

**VIRTUAL ENVIRONMENT IN MOODLE TO BOOST READING ON SIXTH
GRADERS**

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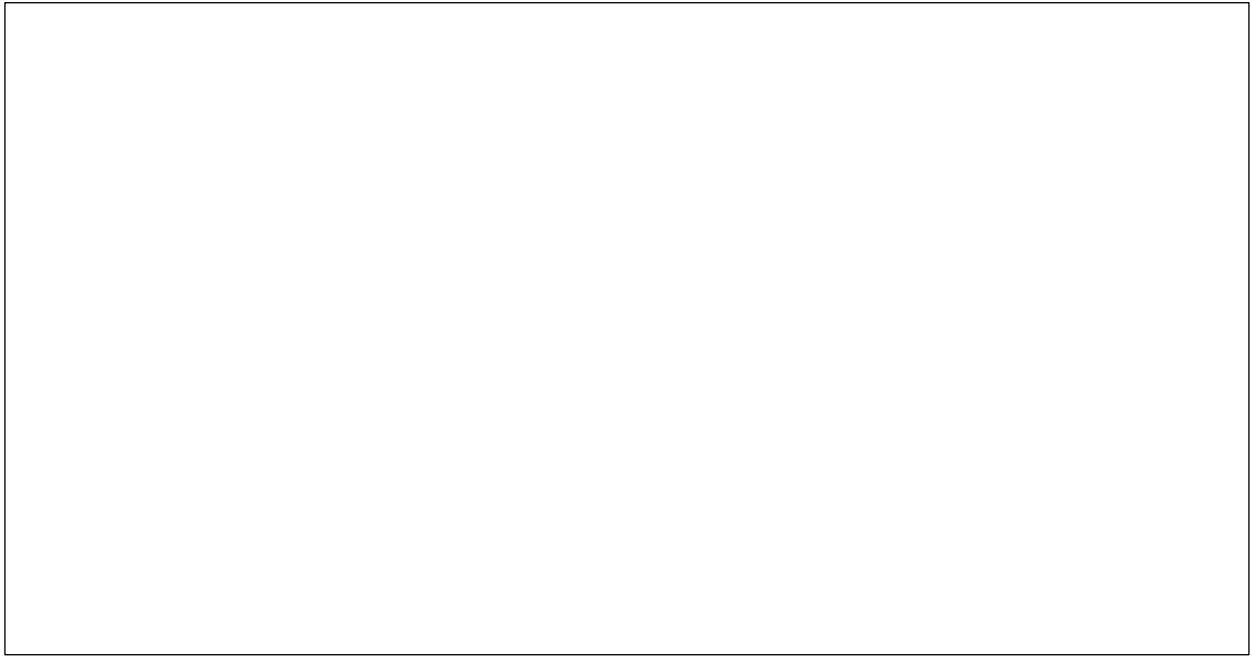
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DEDICATORIA

Quiero dedicar este trabajo a mis amigas, Silvia, Daisy, Viviana, Mélida y a mi compañera de tesis Mónica, por su constante ánimo y por estar a mi lado en los momentos de dificultad, ofreciéndome su apoyo incondicional y su amistad sincera. *“Hicimos un equipazo”*. A Andrés, por su paciencia en este viaje, cuyo amor y apoyo ha sido mi fuerza motriz a lo largo de este camino y sobre todo por creer en mí incluso cuando yo mismo dudaba. A mis padres Marianela y Marcelo, a mi hermano Álvaro, por su infinita paciencia, sacrificio. Gracias por inculcarme valores que han sido fundamentales en mi desarrollo personal y académico. A Patricia, Ismael y Ma. Cristina quienes con su inquebrantable amistad y palabras de aliento me han acompañado en cada etapa de este viaje académico. Su apoyo ha sido crucial en los momentos más desafiantes.

Santiago Limongi

This thesis is dedicated to my family, friends, and mentors who have supported me throughout this journey. Your unwavering belief in me has been my greatest source of strength and inspiration.

To my parents, thank you for your endless love, sacrifices, and encouragement. Your faith in my abilities has been the foundation upon which I built this work.

To my friends, thank you for your patience, understanding, and for providing me with moments of joy and laughter during challenging times.

To my professors and mentors, your guidance, knowledge, and support have been invaluable.

With gratitude, Monica Velalcazar



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RESUMEN

La presente investigación analiza cómo un Entorno Virtual de Aprendizaje (EVA) basado en Moodle mejoró las habilidades de comprensión lectora de los estudiantes de sexto grado de la Escuela "Crespo Toral" en Cayambe, Pichincha. El problema se centra en la baja competencia en inglés de los estudiantes de dicha institución; debido a la falta de un entorno de apoyo y técnicas de enseñanza tradicionales que no motivan adecuadamente.

El objetivo general es implementar un EVA a través de Moodle para mejorar la comprensión lectora. Los objetivos específicos incluyen realizar un examen diagnóstico, brindar a los estudiantes herramientas tecnológicas y pedagógicas y evaluar su progreso.

Además, para evaluar el progreso y la efectividad de la plataforma, se aplicaron un pre-test y un post-test a 20 estudiantes utilizando un enfoque mixto. Los resultados mostraron un aumento de hasta el veinte por ciento en los niveles de competencia y una mejora significativa en la comprensión lectora. Además, la incorporación del diseño instruccional ADDIE junto con la plataforma Moodle revitalizó la participación y la motivación de los estudiantes.

Finalmente, las implicaciones de este estudio indica una mejora sostenible en las habilidades lingüísticas de los estudiantes, lo que marca el inicio de una nueva era en la enseñanza de inglés en la Escuela "Crespo Toral".

Palabras clave: Entorno Virtual de Aprendizaje, Moodle, Comprensión Lectora, Motivación Estudiantil, Diseño Instruccional ADDIE.



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ABSTRACT

This thesis examines how sixth-grade students at "Crespo Toral" School in Cayambe, Pichincha, are able to improve their reading comprehension skills through the use of a Virtual Learning Environment (VLE) in Moodle. The issue is centered on sixth grade students' low English proficiency, which is brought on by a lack of a supportive environment and ineffective traditional teaching strategies.

The main goal is to improve reading comprehension by implementing a VLE with Moodle. Conducting a diagnostic assessment, providing instructional resources and technology, and monitoring student development are some of the specific goals.

A pretest and posttest were given to twenty students as part of a mixed methods approach to evaluate their growth and the usefulness of the platform. The reading comprehension scores significantly improved, and the proficiency levels increased by around 20%. Besides, student enthusiasm and engagement were revitalized by the Moodle platform's integration with the ADDIE instructional design.

Finally, this study's results point to long-term gains in students' language competencies, guiding a new era of English instruction at "Crespo Toral" School.

Keywords: Virtual Learning Environment, Moodle, Reading Comprehension, Student Motivation, ADDIE Instructional Design.



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INTRODUCTION

Nowadays, technology has become an important ally in numerous fields, such as healthcare, communication, transportation, and education. The benefit of technology in the educational field has increased since Covid-19 outbreak. Both teachers and students have moved from traditional classes into virtual environments that are more interactive and attractive to them. Besides, new teaching methodologies, especially the ones that are student centered have become extremely popular since they allow schoolchildren to work at their own pace, promote student collaboration, and present students with access to brand new learning experiences.

Technologically driven classes probe into activities and strategies that would help students learn a foreign language. Virtual Learning Environments (VLE) have become a didactic source for teaching English skills. Thus, a well driven VLE would foster the acquisition of reading skills. According to Harmer (2009), reading is a useful system for language acquisition if kids have little understanding of what they read; the more they read, the more proficient they get at it. Moreover, reading also fosters reading subskills such as spelling, punctuation, skimming, and scanning.

Conversely, Moodle, which stands for “Modular Object-Oriented Dynamic Learning Environment,” is a free-source and open learning management system that helps generate engaging eLearning encounters. Primary schools, colleges, businesses, and other areas use Moodle for flipped classrooms, blended learning, remote learning, and other virtual learning projects.

The use of Massive Open Online Courses (MOOCs) has become popular since the Covid-19 epidemic due to their support for completing tasks, enhancing learning processes, and training



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methods. Kortjass et al. (2023) mention that the majority of education institutions prior to the pandemic Covid-19 only used online tools to extend in-person education.

Since Covid-19 spread and during the lockdown periods, the use of MOOCs stayed for teaching and learning. This pandemic not only showed that human beings are able to cope with difficulties but also showed the potential of digital and online applications. Peters et al. (2020) stated that “deadly diseases have historically pushed humans to break from the past and picture humans’ potential around the globe in green daylight.” In the same context, it has been clear that online platforms such as Moodle have marked improvements in English learning.

The Problem

Ecuador’s English is a foreign language that is taught and learned in each institution. Every school has English as a compulsory subject on their study plan, even if it is a private or public school, university, or college. Nevertheless, Ecuador’s position among Latin American countries in terms of English language proficiency is quite low. According to research performed by EF-English First (2023), the country of Ecuador ranks 80th out of 113 territories. It shows that students are not developing the needed English skills. This issue might lie in the fact that there is not such a thing as a supportive environment, so students do not get either intrinsic or extrinsic motivation to learn English.

On the other hand, it is common for teachers to instruct their students using the same teaching approaches as if they were instructing identical students, despite the fact that each student learns in a different way. In the words of Guerrero (2022), “there are a variety of ways in which students learn, so it is imperative to detect approaches that aid or support EFL students in acquiring a foreign language effectively.” Traditional methods might make students less



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motivated to learn the English language since they might not receive the instruction they need in a traditional and boring classroom.

Hypothesis

A number of theories can be developed about the issues of English language acquisition in Ecuador, with the aim of reviewing the fundamental elements affecting students' motivation, the lack of reading understanding, and the ability to communicate with others. First, it is assumed that there is a substantial connection between Ecuadorian EFL students' ability levels and the teaching strategies used by educators. As Tara (2015) declared, "The culture of reading is not extraordinarily strong in Ecuador. Books are hard to come by and extremely expensive. There are very few people who read for enjoyment." This conjecture is based on the finding that Ecuador has one of the lowest rates of reading proficiency among Latin American nations. (De Angelis, 2022) declared that mastery of a language refers to the capacity to communicate through language in various sociocultural contexts. It is less coherent to view marks as measures of general English competence or expertise, particularly when compared to the Common European Framework of Reference for Languages (CEFR).

Furthermore, it is believed that the lack of a supportive environment has a significant impact on EFL students' motivation levels when it comes to the learning environment's influence on EFL students' inspiration to learn the English language. Besides, it is grounded in the idea that certain students may not be intrinsically or extrinsically motivated to engage with the traditional material if they do not receive sufficient support and favorable learning environments for language acquisition. So, it is important to find out new teaching methods, especially those that are oriented towards technology since students are digital natives.



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Kavanagh (2023) mentions that by providing more access to new technologies, students can create more learning opportunities. Therefore, with technology integration into the classroom, EFL students would succeed in a world that is becoming more digital. Thus, instructors could create dynamic and engaging learning environments that meet the needs and preferences of today's classroom. Kavanagh (2023) supports that “thanks to digital technologies, students can now research a wider range of topics and share their knowledge through multimodal compositions.”

General Objective

To implement a Virtual Learning Environment through Moodle, integrating technological tools to boost the reading comprehension skills of sixth graders at “Crespo Toral” School.

Specific Objective

1. To conduct a diagnostic exam to assess the reading comprehension levels of the sixth graders at “Crespo Toral” School.
2. To facilitate technological and pedagogical online tools to actively engage students in an interactive platform to improve their reading understanding.
3. To evaluate students' progress using specialized criteria and estimate the enhancement of their reading comprehension skills within the context of a virtual learning environment.

Research Questions:

1. What are the perceived advantages and the perceived trials experienced by students using the Virtual Learning Environment for enhancing reading comprehension skills?



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2. How does the integration of technological tools in Moodle impact the improvement of reading comprehension skills?

Research Proposal

Even though technology has been developed and has been extremely exploited in recent years, many English teachers are still instructing their classes in the traditional way. Thus, students are passive learners who often feel bored. Conversely, teachers of English function as the only agents in the learning process. Hence, the necessity to develop new learning environments that move students from passive learners to active learners as well as to assist them in learning at their own pace with the support of technology is a need that must be fulfilled as soon as possible.

The situation of sixth graders in “Remigio Crespo Toral” School, located in Cayambe, Pichincha’s province, is similar to the one listed above. In fact, most of the students have not developed their English skills properly. Sadly, most students have no interest in learning English. First, they do not study what is necessary to acquire knowledge. Second, EFL students’ do not feel motivated to learn because they consider English. This is a response to the old-fashioned and traditional classroom management that English teachers lead in their groups.

The research aims to motivate EFL students to keenly contribute to their English language instruction and improve their language skills. By transforming the traditional teaching space into a dynamic and interactive virtual learning environment. On the other hand, in order to collect qualitative and quantitative information on students’ attitudes towards learning English, their current proficiency levels, and their access to technological resources, this assessment will make use of surveys and observations.



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Additionally, in order to find opportunities for technology-enhanced integration, learning activities, and areas for improvement, this research will also look at the current national curriculum and teaching approaches in Ecuador. Besides, the effectiveness of the technology-integrated curriculum will be evaluated through pre- and post-assessments, student surveys, and classroom observations as well.

To engage students in meaningful reading experiences, educators can use Moodle to integrate a variety of multimedia resources, interactive exercises, and collaboration tools. Moodle makes personalized instruction possible by presenting teachers with an open gate to a wide breadth of texts and resources on a single platform. This enables teachers to successfully oversee students' diverse learning styles and competence levels.

Furthermore, Moodle encourages student independence and self-directed learning by providing chances for personal investigation. Students can take part in interactive exercises intended to improve comprehension abilities, read texts at their own pace, and have conversations with peers.

Beyond analyzing how technology integration affects students' English language learning and reading objectives, the study will also examine instructors' opinions and experiences with technology used in the classroom. Finally, the research seeks to make long-lasting improvements to the English language education program at "Remigio Crespo Toral" School by enabling teachers to effectively integrate technology into their daily planning and to serve as an example for other schools in the area to follow.

Structure of the Research

This research work is structured into three broad chapters.



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The initial chapter, Chapter 1: Theoretical Framework, considers the conceptual foundations appropriate to the research topic. It lays the foundation by exploring the key theories, principles, and models of the study, providing a thorough understanding of the subject matter.

Chapter 2: Methodological Strategy integrates the theoretical context established in the first chapter. This section details the research design, methods, and methodologies employed to achieve the stated research objectives. It elaborates on the investigative techniques, data collection procedures, and analytical approaches used, ensuring a robust framework for the study.

Chapter 3: Discussion and Analysis, presents a comprehensive analysis of the research findings. It discusses the results in depth, examining their implications, benefits, and potential applications. This chapter also assesses the viability and feasibility of the research outcomes, offering critical insights and recommendations based on the data obtained.

The final chapter, Chapter 4: Presentation and Validation, discusses the development of a virtual learning environment in Moodle, which incorporates gamification elements, various readings, and other technological tools. This chapter also includes the validation and review by experts of the mentioned virtual platform, along with their conclusions regarding the VLE.



CHAPTER 1: THEORETICAL FRAMEWORK

Constructivism

The constructivism learning theory explains that people learn by creating, constructing, and forming their own knowledge through interactions with others and the environment.

(McCray, 2007, mentioning Piaget 1932, p. 1) “Knowledge originates from the individual’s intellect and is given meaning through interpersonal interactions and background interpretation of the surrounding world.” Inside this approach, information remains derived primarily from the characteristics and experiences of the person in question.

The Constructivism Learning Theory presents key factors listed below.

Figure 1:

Learners and Teachers roles and features

Learners' Role and Features.

- Prior knowledge plays an important role to create new knowledge.
- Real world learning.
- People learn through experiences.
- Learners discover new concepts for themselves.
- Learners share their ideas
- Learning is a cognitive and active process.

Teacher's Role and Features.

- Teachers create a proper learning environment.
- Teachers give students ownership of the learning process. (student centered)
- Teachers encourage collaborative learning and inquiry.
- Teachers encourage the constant dialog with the learner.

Note: Adapted from: helpfulprofessor.com (2023)

Socio-constructivism



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Socio-constructivism is a model of learning that gives a strong emphasis on how learning is constructed via social relations with the surrounding environment (Vujičić et al., 2019, p. 5). In other words, socio-constructivism believes that students should actively create their understanding and knowledge of the world through experiences rather than just absorbing information passively. Through collaborative learning approaches, students learn how to operate in a team and understand that the effectiveness of group learning depends primarily on individual learning.

In addition, identifying learner's individualism, EFL students' pros, cons, and their complexity, Socio-Constructivism actively encourages students and makes practice of incentives or gifts, making this intricacy a central element of the educational procedure.

Each cultural function that a kid experiences first arises twice: once on the collective level and again on the discrete level; once between individuals (interpsychological) and once within the child (intrapsychological). This is confirmed for theory generation, rational recall, and voluntary awareness as well. The base of every single deeply function is absolutely valid among interpersonal interactions (Vygotsky, 1978, p57).

While accepting the uniqueness and complexity of every student, socio-constructivism also actively encourages, utilizes, and values this complexity as an essential element of the educational endeavor and didactic process.

Zone of Proximal Development

The concept known as the Zone of Proximal Development (ZPD) shows the gap between information and activities that a student is able to complete on their own and what a student is

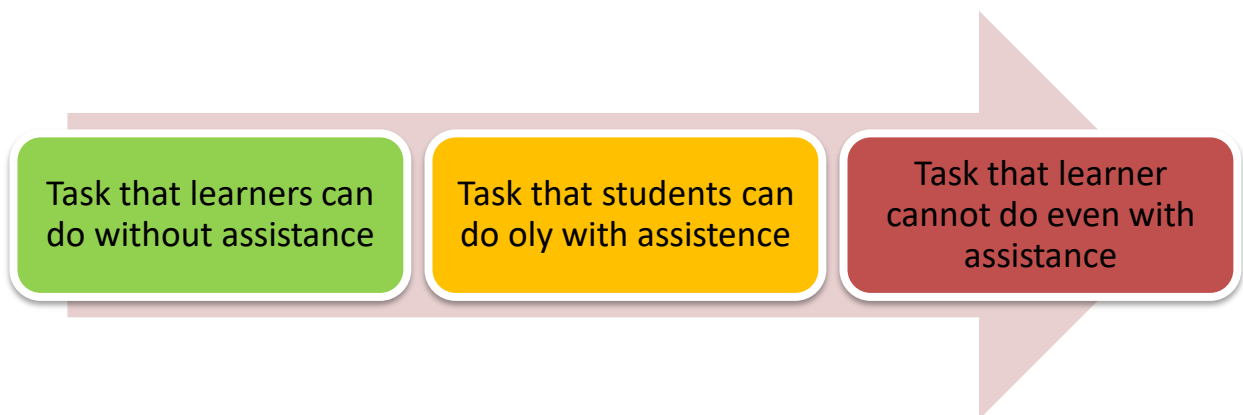


unable to do with no assistance. Furthermore, it enables the instructor to effectively oversee the students' learning through collaboration and communication.

When students are helped by a teacher or peer who possesses a better skill set or knowledge about a specific topic, they are able to learn. According to Vygotsky (1987), the ZPD indicates functions that are still in the developing stage but are in the process of maturing, as well as functions that will soon attain maturity.

Figure 2:

Zone of Proximal Development



Note: researchers' elaboration.

The ZPD is a view that is essential to the teaching-learning process's developmental nature is the student. Its application in education provides a means of assessing students' progress and developing strategies to improve it.

Multimodal Learning Theory

Multimodal Learning Theory (MLT) aims to raise the standard of instruction. Modelling or teaching an idea or topic through reading, auditory, visual, written, or kinesthetic techniques is known as Multimodal Learning. According to Litonjua (2021), students might see a task



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demonstrated physically, while others would rather hear instructions on how to complete it.

Learners who are exposed to a variety of MLT are able to learn more quickly, deeply, and retain more information by coordinating the transmission of content in the most effective and efficient way for EFL students to acquire knowledge.

This method is already included in the majority of common online learning platforms.

They include:

- **Speech:** spoken communication using language and sound.
- **Audio:** signals that can be heard by the human ear, often transmitted electronically.
- **Written and/or Printed:** text or information recorded on paper or in a digital format.
- **Illustrations:** visual symbols or representations such as pictures, that enhance printed or oral content.

Transfer of Reading Skills

The ability to use and modify one's reading skills in a variety of settings, resources, and circumstances is known as the transfer of reading skills. It relates reading comprehension abilities acquired in unfamiliar texts, assignments, or settings. (Odlin 1989, as cited on Altıncı 2016) "Transfer of skills is the impact created through the parallels and modifications among the foreign language instructed plus any language previously learned or acquired." Eventually, students will become skilled readers who can comprehend and analyze a wide range of texts outside of those they encounter in instructional settings, such as textbooks provided by the Minister of Education or the school principal.

Students who acquire transfer techniques when reading fiction, for instance, may be able to apply similar abilities when interpreting informational books. For example, a student who



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acquires vocabulary strategies through literature reading may be able to apply these strategies to comprehend difficult scientific writings. Vazques (2014) mentioned that students engage through their native tongue, also known as L1 sub-skills, through transfer. Therefore, these abilities could be imitated from L1 to L2. Finally, once somebody learns or acquires a language, EFL students are in “Language Mode.” This means a transition between skills from Native Tongue to L2.

Reading abilities can be transferred between languages, and both courses can be structured like adjunct courses.

Acquisition of Reading Skills from L1 to L2

Altınışdört (2016) observed that the acquisition of first and second languages (L1 and L2) is not the same. When learning a second language, L2 students transfer their L1 language skills to L2 and bring all of their L1 information with them. Moreover, children in several countries must acquire proficiency in both their native tongue (L1) and an external language such as English (L2). Cilliers (2023) suggested that kids learn a language effectively when they are able to link unfamiliar words and phrases from their native tongue to new concepts. Teachers can help EFL students produce connections among new information and what they previously knew by openly training them to recognize resemblances and transformations between texts and to activate existing knowledge. Cilliers (2023) concluded that as EFL students become more familiar with target new words; they boost their self-esteem and confidence, making their daily classes more pleasant. Thus, giving students the chance to interact with a variety of texts, genres, and multimedia materials can also help them learn a foreign language.

On the other hand, L2 reading is positively impacted by the L1 intervention. The similarities seen in L1 and L2 courses could lead to new developments in language programs.



This might improve language learners' overall experience and proficiency, despite their linguistic background.

Reading Development in Youngsters

Children's reading development is influenced by a complex combination of linguistic, socioemotional, and cognitive elements. As Anthony & Jeanne Pritzker (2023) mentioned, reading aloud to children, especially during their early ages, stimulates the brain area that aids in dialectal and verbal comprehension as well as the development of important literacy, social, and linguistic skills. Through reading, children learn essential skills, including phonemic awareness, comprehension, and vocabulary.

According to Anthony and Jeanne Pritzker (2023), youngsters will not be able to practice phonics or fluency, but they will be introduced to phonetic awareness, lexis, and reading comprehension early, which will prepare little ones for success as they grow and participate with the whole globe. To support these abilities, which are included in effective reading teaching, such as exposure to a variety of texts, phonics training, vocabulary instruction, and comprehension tactics, besides offering lots of opportunity for practicing and exposure to written language, teachers can produce a rich atmosphere in the schoolroom, and parents can also assist children's reading development at home.

The development of five early reading abilities is necessary. They are as follows:



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Figure 3:

Five early reading abilities

1. Phonemic Awareness

- The capacity to perceive, distinguish, and modify individual sounds in spoken words.

2. Phonics

- Having the ability to associate spoken and written language sounds with letters.

3. Vocabulary

- The words that children require in order to speak or write well.

4. Reading Comprehension

- The capacity to comprehend what has been read and derive meaning from it.

5. Fluency (oral reading)

- Having an accurate text reading skills.

Note: This figure shows the different early reading abilities. This table is adapted from: <https://www.understood.org/en/articles/reading-skills-what-to-expect-at-different-ages>

Finally, reading development in children offers an additional advantage to auditory learning. It exposes students to the language of books, which is sometimes different from the language and structures that students encounter in everyday life.

Technology Motivation and Student Engagement

Academic success and learning outcomes are significantly influenced by technology motivation and student connection. While student engagement refers to the degree of active participation, passion, and investment in learning activities, motivation refers to the inner drive or desire that energizes and guides behavior towards reaching a goal. Jimenez (2020) mentioned that students become more motivated when they know the topics that they are going to study.



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Students like to share about their likes and passions rather than their dislikes. Zheng et al. (2024) conclude that today's elementary school students are not like those of the past; they have grown up in a world where digital gadgets are commonplace. Thus, students have new motivation and engagement.

Fostering student involvement requires establishing a stimulating and encouraging learning environment. This results in offering students the opportunity for autonomy, choice, and relevant learning experiences tailored to their interests and real-world situations. Jones (2020) commented that modern technologies have the capacity to inspire students in an educational context. In the same perspective, Zheng et al. (2024) explained that Internet consumption and motivation between EFL students during and after the isolation caused by COVID-19 pandemic have been enhanced by online learning. In other words, by encouraging active participation and interaction, active learning techniques, including problem-solving exercises, collaborative learning, and hands-on activities, can help increase student engagement.

Overall, a complete approach that considers the societal, emotional, sensitive, and cognitive needs of EFL students is necessary to promote motivation besides student involvement. Teachers may foster intrinsic motivation, active participation, and meaningful learning experiences for every student by providing a safe and exciting learning environment.

Learning Assessment and Motivation

As stated by Taras (2010), learning assessment (AfL) is a key component of education, and involves obtaining data on students' knowledge, skills, and capacities in order to evaluate their academic progress. For that reason, tests, puzzles, schemes, demonstrations, portfolios,



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notes, and self-evaluations are just a few illustrations of the numerous ways that assessments can be made.

Teachers can use assessment as a diagnostic technique to pinpoint students' areas of strength and growth. Teachers can adapt their teaching tactics, differentiate their curriculum, and provide focused support to realize students' unique requirements by reviewing assessment data.

Educational Technology

Educational technology introduces and explains the usage of technological tools, online resources, and platforms to enhance teaching and learning practices. Educational applications, online learning environments, and digital learning resources are just a few of the many technologies that are included in it. In the classroom, educational technology provides a number of advantages, such as easier access to learning resources, customized or personalized learning options, and chances for interaction and cooperation.

Besides, modern education is aided by educational technology, which provides creative gear and resources that improve online teaching and online learning as well. Through the usage of digital whiteboards, educational apps, and online learning platforms. (Granić, 2022, p.14) pointed out that “as advancements in technology continue to emerge and the number and variety of users in educational environments expand, new research avenues are being explored that could enhance our comprehension of the acceptance, adoption, and practical utilization of technology”. This experience may facilitate individualized learning, teamwork, and access to a wealth of knowledge. It demands-good preparation and consideration of pedagogical goals, learner needs, and technological skills to integrate educational technology in an effective way.



Effective utilization of educational technology may enhance student engagement, improve active learning, and train them for accomplishment in the digital era. Granić y Marangunić (2019) claim that technology utilized in educational settings has gained popularity. It is crucial to get a balance between using technology and conventional teaching techniques, as well as to guarantee that almost all EFL students have identical access to technological resources.

On the other hand, teachers can more effectively monitor and evaluate student progress and deliver differentiated instruction thanks to online learning tools such as Moodle. Furthermore, educational technology can expand the scope of learning outside of the classroom by giving students the chance to independently research topics of interest, curiosity, as well as access resources from any place around the globe with a proper internet connection.

Educational Platforms

Educational platforms, also known as Learning Management System (LMS), involve creating user-friendly interfaces and engaging learning environments that support diverse learning styles and preferences. As mentioned by Kirvan and Brush (2023), LMS organizes, implements, and evaluates learning processes using e-learning procedures. It consists of a User Interface (UI) for educators, EFL students, and supervisors, and a server for elementary functioning. Common Learning Management Systems (LMSs) used by didactic organizations incorporate Schoology, Blackboard Learn, Canvas LSM, Moodle, Duolingo, and Adobe Learning Manager, among others.

In order to improve an effective LMS, some elements like accessibility, navigation, multimedia integration, and interactivity must be included. Kirvan and Brush (2023) explained



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that Educational Platforms can support varied learners' requirements and encourage active engagement by adding features like clear instructions, intuitive design, interactive elements, and adaptive learning approaches. Additionally, giving teachers, students, and administrators the option to customize and personalize their learning experience enables them to fit their own learning objectives and preferences.

The effectiveness and engagement of educational platforms can also be improved by incorporating multimedia content and interactive aspects. Features that allow for active engagement and exploration, such as gamification, films or short videos, animations, and interactive exercises, can support the reinforcement of learning objectives.

The efficacy of educational platforms can be further increased by employing adaptive learning technologies, which tailor the learning method according to the EFL students' requirements and the development of each individual participant. On the other hand, in order to maximize learning results and user happiness, educational platforms must be continuously evaluated and improved based on user feedback.

Trends in Virtual Education

Technology has been developed to meet the demands of education. This development has been anticipated to have an impact on future trends in virtual education. Between the possible trends are:



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Table 1

Future trends in virtual education

Virtual and Augmented Reality Integration:	Virtual and augmented reality technologies are expected becoming important components of virtual education as they develop and become more widely available. The use of these technologies, educators may provide immersive learning experiences that let students perform experiments, explore virtual worlds, and engage directly with difficult ideas.
Artificial Intelligence and Personalized Learning:	Artificial intelligence (AI) has the likely to completely change online education. With the usage of AI algorithms, teachers may deliver focused assistance and interventions by tracking student progress, analyzing student data, and instantly adapting educational materials.
Gamification and Game-Based Learning	Game-based learning environments and gamification strategies would proliferate in online education. Educators may develop critical thinking and teamwork in addition to increasing student engagement and motivation by implementing game design components like challenges, prizes, and feedback mechanisms.
Social and Collaborative Learning Spaces	There is a chance that virtual education platforms may place more emphasis on social and collaborative learning environments where students can work on group projects,



	communicate with one another, and hold debates. Online learners can benefit from social presence tools like chat, video conferencing, and discussion boards as they help create a feeling of community and meaningful connections.
Accessible and Inclusive Design	As virtual education becomes more mainstream, there will be a greater emphasis on designing accessible and inclusive learning experiences for all students, including those with disabilities. Virtual platforms will need to incorporate features such as screen readers, captioning, and alternative formats to ensure equitable access to educational content.

Note: Adapted from: research.com - Online Education Trends: 2024 Predictions, Reports & Data

Online Teaching and Learning

Online teaching and learning, also known as e-learning or virtual education, have become more shared and popular in recent years as a consequence of changes in educational practices and technological breakthroughs. Lawless (2024) mentioned that despite its origins in old-style education, e-learning has been transmitted through technological devices like CPUs, smart tablets, and even smartphones. Thanks to this, individuals now have the flexibility to learn whenever and wherever they desire, with minimal constraints or restrictions. The flexibility that comes with studying synchronously or asynchronously is one of its many advantages. Learners are able to participate in didactic events and find instructional resources from any site with a net connection. Learners, working professionals, and others with chaotic schedules who might not be able to attend traditional, in-person classes would especially benefit from this flexibility.



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Delivering educational information and supporting instruction via digital platforms and tools, often in synchronous or asynchronous formats, is the essence of online teaching and learning.

Learning management systems (LMS) enable teachers to design personalized learning paths, present multimedia-rich content, and give students rapid feedback. Coleman (2024) claimed that the importance and effectiveness of technology-driven learning cannot be overlooked or entirely disregarded, even as the traditional approach of non-digital education through books and lectures remains undoubtedly meaningful. Furthermore, by customizing training to meet each student's unique needs, adaptive learning technologies enable focused interventions and support.

Conversely, effective online teaching and learning require interaction and collaboration. Students and teachers may communicate and engage with each other more easily through virtual classrooms, discussion boards, video conferencing, and collaboration tools. Domer (2023) stated that eLearning encourages lifelong learning, providing opportunities for students to continuously improve their knowledge and abilities throughout their experiences. It enables teachers to stay up to date with teaching innovations and adjust to shifting educational demands. This builds a sense of community and common learning experiences. Moreover, when students from various backgrounds join together in virtual learning environments, online instruction can foster cross-cultural exchanges and global linkages.



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CHAPTER 2: METHODOLOGY

Research Approaches and Methodologies Used

Scope of the Research

The present research was conducted at Escuela de Educación Básica Remigio Crespo Toral, located in Cayambe province of Pichincha in the Highland region. It works in two schedule shift. The morning shift accommodates students from first to seventh grade in the morning. Meanwhile, the afternoon shift welcomes students from eighth to tenth grade. (For further information, see Annex A.)

This research was limited to students enrolled in their sixth-year class E. During the morning shift, each student was asked about their preferences for learning English in advance.

Type of the Research

Mixed Approach

In contemporary research, mixed methods stand out as a potent approach that smoothly integrates qualitative and quantitative techniques into a single study. In the words of George (2023), mixed methods provide an additional and more complete representation than separate quantifiable or qualitative revisions because they mix the best of both approaches. This approach is particularly useful when seeking a deeper sense of a case study by investigating a research question from multiple perspectives and using a range of data collection and analysis methods.

Additionally, mixed-methods research enables researchers to take benefit of the advantages of both methodologies. According to Creswell (2009), in mixed methods, the researcher typically bases knowledge on practical considerations. It uses inquiry tactics that



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entail gathering data in a parallel or sequential fashion in order to comprehend study topics as best as possible.

Qualitative Method

Qualitative methodologies encompass the gathering of non-numeric data through approaches such as interviews, focus groups, observation, or document examination. Common techniques include thematic analysis, content analysis, and narrative scrutiny. Qualitative methods illuminate participants' backgrounds, subjective experiences, and perspectives and provide comprehensive insights necessary for full understanding.

Quantitative Method

Quantitative methods include the collection of statistical data through surveys, experiments, or structured observations. Quantitative analysis uses statistical techniques to examine numerical data, such as descriptive statistics, inferential statistics, or regression analysis. Those methods help quantify relationships, patterns, and trends and provide insights that are generalizable and suitable for statistical inference.

Advantage of Using Mixed Approach

Mixed methods allow researchers to answer research questions from different perspectives, leading to more reliable and nuanced conclusions. Through a combination of both methods, investigators obtain a comprehensive understanding of the topic in research and examine it from multiple dimensions.

The fusion of data from different methods increases the credibility of the outcomes, thereby lending greater credibility to the findings. An advantageous aspect of mixed-methods research is its ability to leverage the strengths of both qualitative and quantitative methodologies.



On the other hand, a rich exploration of participants' experiences, perceptions, and behaviors is made possible by qualitative methods like observations and interviews, which also offer an understanding of the information about the meaning and context of quantitative data.

Table 2

Qualitative, Quantitative, and Mixed methods Features

Qualitative research method	Qualitative research method	Mixed research method
▪ Questions grounded in specific criteria or bases. ▪ Data gathered from performance assessments, observations, and population surveys. ▪ Analysis involving statistical methods	▪ Open-ended questions. ▪ Interviews. ▪ Data in audiovisual format. ▪ Analysis of text and imagery	▪ Questions that encompass both open-ended and closed-ended formats. ▪ Various types of data collection methods, including statistical analysis and textual examination, to encompass all potential avenues.

Note: researchers' elaboration.

While quantitative methods make it easier to demonstrate causal connections and generalize findings to larger groups, qualitative methods allow researchers to search deeply into the complexities of human experiences and actions. In practice, using mixed methods is usually conducted in stages, with data collection and analysis occurring either in parallel or sequentially.



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Conceptualization and Operationalization of Main Categories

Dependent variable.

Reading

Reading is essential for learning new things and absorbing information. This skill is necessary for both lifetime learning and academic success. Smith (2004) finds that “four essential and fundamental aspects make reading a creative and constructive activity: it is determined, discerning, preventive, and comprehension-based”; these are entirely areas where the reader implements discipline and control. Furthermore, studies by Richards et al. (2002) indicate that reading understanding is the identification of the projected meaning of transcribed or articulated communication. Besides, proficient readers improve comprehension by drawing conclusions and connecting the text with prior information, in addition to understanding the text’s literal meaning (See Annex B, Operationalization Matrix.)

Independent Variable

Virtual Environment in Moodle

On the one hand, virtual environments refer to computer-generated simulations or immersive digital spaces that users can interact with. Collaborative Virtual Environments (CVEs) use technology to make today’s computer networks navigable and conducive to social play and collaborative work. According to Méndez Barceló et al. (2017), virtual environments are conducted in a predetermined location, and the distance element (non-physical presence) is present. VEs are frequently used in a diversity of applications, such as training, tutoring, simulation, and even gaming.



On the other hand, Moodle is widely utilized in academic institutions to create efficient and interesting online learning experiences, corporate training settings, and others since it is open source. Lungu (2022) stated that “Moodle is a free learning management system that offers an online learning environment. It assists educators in developing their courses, curricula, and course structures, which in turn makes it easier for students to communicate with each other virtually.” (See Annex C, Operationalization Matrix)

Table 3

Chart of Variables and State of Art

Independent variable	
“Advances in Language and Literary Studies the Effect of Virtual Language Learning Method on Writing Ability of Iranian Intermediate EFL Learners.” Author: Hooshang Khoshsim Year: 2020	This study aimed to investigate the effect of virtual language learning methods on Iranian intermediate EFL learners' writing abilities. The study was conducted with 20 English Translation students at Chabahar Maritime University who were assigned into two groups, control and experimental, after ensuring of their homogeneity by administering a TOEFL proficiency.
“The Influence of Virtual Learning Environments in Students’ Performance.”	This paper examines how the adoption of a virtual learning environment (VLE) affects student performance. Thus, virtual learning environments are described, and a study is given.



Authors; Paulo Alves, Luísa Miranda, Carlos Morai	emphasizing the frequency of access to a VLE and its relationship with the students'
Year: 2014-2015	performance from a public higher education institution during the academic year of 2014-15.

Dependent variable

“A Comparison of Sixth Grade Student Achievement in Reading and Mathematics at School Transition Yearend Mathematics at School Transition Year.” Author: Julie Roseboom Year: 2016	This research provided insights relevant for school districts when determining grade span configurations within school designs. It focused on investigating the impact of transitioning from fifth to sixth grade in Florida public schools on student achievement. The aim was to furnish data to inform decision-making among school policy makers and district administrators, while also enriching the existing understanding of grade level configurations that have the greatest influence on sixth-grade student achievement.
“Exploring the Relationship between Reading Comprehension and Text Genres in Fifth and Sixth Grade” Authors: Zoe Krokou Year: 2022	This study investigates reading comprehension in relation to two primary text genres, narrative and informational, which are distinguished by their content, and explores how they are influenced by students' prior knowledge. Additionally, it examines the challenges



encountered by students across various levels of reading comprehension, including vocabulary, literal understanding, intertextual connections, and inferential comprehension.

Note: researchers' elaboration.

Population

A convenient sample of 20 sixth grade students, ages ranged from 10 to 11 years, who were enrolled in the EBB Remigio Crespo Toral 2023-2024 academic term.

Table 4

Beneficiaries chart

Sample	Number	Total	Percentage
6 th E students	Male: 11 Female: 09	20	100%

Note: researchers' elaboration.

Ethical and Legal Considerations

This investigative work complies with the Ethical and Legal Considerations listed below:

Informed consent

The present study strictly adheres to the guidelines to safeguard the confidentiality of participants who are minors. Additionally, in order to meet ethical and regulatory requirements, informed consent is requested from parents or legal tutors prior to collecting any information regarding the present investigation. The consent letter outlines the main purpose and objectives of the study, along with its ethical considerations, which encompass issues of anonymity and



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confidentiality. Mirza et al. (2023). In the same perspective, Bhandari (2023) emphasized that scientists and researchers are bound by a code of conduct that must be adhered to at all times when collecting information from subjects.

These factors serve to:

1. Safeguard study participants' rights.
2. Increase the validity of the research.
3. Uphold the integrity of academia.

Besides, this method guarantees the privacy and rights of children, creating a secure and honest research environment. To guarantee that, the names and surnames of the participants have been hidden from the consent document (see appendix 6). The unique method to guarantee anonymity is to abstain from collecting any personally identifiable information, including names, contact details, IP addresses, physical characteristics, images, or videos (Bhandari, 2023).

Data privacy

Researchers have a responsibility to implement all necessary measures to protect the confidentiality and privacy of research participants' data. (Dane, 1990; Miles and Huberman, 1994). The privacy of the data is a concern in today's digital age, especially in educational settings. Pseudonymization of data involves replacing participant identifying information with pseudonyms or fictitious identifiers. While this practice makes it more challenging to link data directly to individuals since personal information is separated from the study data, it is important to note that the data can still potentially be linked back to participants (Bhandari, 2023). Thus, protecting students' data privacy in virtual environments such as Moodle is essential to guarding



their information from illegal, unauthorized access, or scammers. This present research complies with these parameters and protects the data of every one of the participants.

Online security

Every participant, including the researchers, has their own user to access the Moodle platform. The username is personal and nontransferable. Besides, creating their own password is mandatory, so users must change and create a new password after logging for it for the first time. The aim is to protect participants from unauthorized users and phishing, since it is important to protect students' privacy and the integrity of information on digital networks. The company specializing in online security, McAfee (2022), commented that, considering the growth of the internet and its increasing integration into people's daily lives, cyberthreats are becoming more sophisticated and widespread.

Table 5

Internet hazards

Malware	Refers to any software that takes advantage of weaknesses in the system to harm a computer system or network and steal private data from users.
Spam	When unsolicited emails are sent to someone's inbox in large quantities, they are referred to as spam.
Phishing	Refers to cyberattacks that take advantage of a user's private information by tricking them into opening a malicious link in an email or instant message.

Note: researchers' elaboration.

On the other hand, Moodle, as a leading Learning Management System (LMS) integrates new improvements that emphasize Moodle's dedication to privacy and security, making sure that



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every part of the platform not only protects user data but also cultivates a trust-rich atmosphere that is favorable to learning. This thorough examination guarantees that Moodle complies with all applicable privacy and data protection standards.

Copyright and Intellectual Property

The terms “copyright” and “intellectual property” refer to the legal guarantees or protections afforded to the authors of original works, such as videos, pictures, music, art, and many others. Copyright and Intellectual Property have been respected during the execution of this research. It is important to comprehend the terms "author" and "work" in light of copyright laws, Michelson et al. (2021). The person who creates the content is referred to as the “author,” The word "work" refers to any kind of artistic, literary, dramatic, musical, cinematographic, or sound recording endeavor. To put it another way, the work needs to be unique, meaning the author has to think independently and without repetition in order to develop it.

Finally, during the creation and development of the Virtual Environment on Moodle to Boost Reading on Sixth Graders, copyright and intellectual property were respected. Besides, in order to find relevant materials and resources that might be used in Moodle in a way that is presented in both morally and legally acceptable.

Research Procedure

The authors have organized the present research procedure as follows:



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Table 6

Schedule with duration in weeks.

N°	PROCEDURE	SCHEDULED TIME
1	Write a letter requesting permission from the principal of Escuela de Educación Básica Remigio Crespo Toral and get approval for the research.	2 weeks
2	Class observation of six grade “E” students.	5 weeks
3	Describe to parents and legal representatives about the research topic, aim, intention, etc. to obtain a signed consent before collecting information.	3 hours
4	Pretest (face to face)	1:30 hours
5	Pretest data analysis	4 hours
6	Design of the proposal (Moodle, lesson plan, online resources)	1 week
7	VLE Presentation, Feedback, and Validation of Experts	3 weeks
8	Training students on the use of the platform	1 week
9	Implementation of the proposal, among others	8 weeks
10	Posttest and data analysis	10 days
11	Conclusions and recommendations	10 days

Note: researchers’ elaboration.



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Table 7

Gantt Diagram

ACTIVITY	MONTH	October				November				December				January				February				March				April				May			
	WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Write a letter requesting permission from the principal of Escuela de Educación Básica Remigio Crespo Toral and get approval for the research.																																	
Class observation of six grade “E” students.																																	
Describe to parents and legal representatives about the research topic, aim, intention, etc. to obtain a signed consent before collecting information.																																	
Pretest (face to face)																																	
Pretest data analysis																																	
Design of the proposal (Moodle, lesson plan, online resources)																																	
VLE Presentation, Feedback, and Validation of Experts																																	



CHAPTER 3: DISCUSSION AND ANALYSIS OF THE RESEARCH RESULTS

Introduction to the Discussion

This chapter presents an analysis and interpretation of the findings after applying a pretest regarding the use of Moodle's virtual environment to boost sixth-grade students' reading comprehension on February 13th, 2024, during the morning shift.

The pretest was carefully designed to serve two purposes, with two separate sections that were intended to provide compressive data. During the pretest's first section, which serves as a diagnostic tool that is carefully shaped to assess students' reading comprehension skills. Through the process of a sequence of well-constructed questions, researchers were able to extract information regarding the students' understanding at this point, as well as determine particular areas that would require additional development and improvement.

Besides, the second part of the pretest goes deeper into the prior experiences and attitudes of the students. This section aims to provide insight into students' technological proficiency, their ability to use a variety of online resources and tools, and other pertinent aspects that may have an impact on their overall academic achievement.

Finally, once the pretest was concluded with the use of a carefully designed rubric. This rubric functions as a methodical framework for assessing the performance of a sample of students over a period of two weeks, (13 days). Researchers were able to objectively evaluate and analyze the student's development by using the specific criteria listed in the rubric (See appendices 7 and 7.1.)

Pretest: Interpretation of the Results I



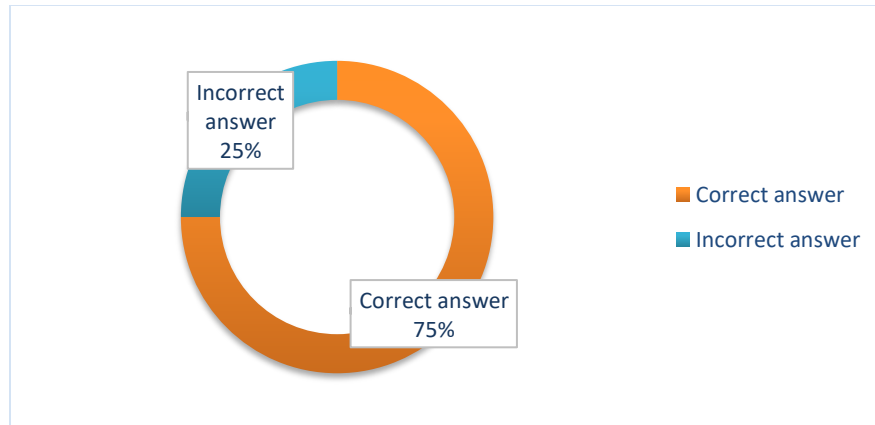
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The Reading Diagnostic Test Question was about reading a short paragraph (85 words), and the results were obtained as follow:

1. Read the text. Choose a title for the passage.

Figure 4:

Pretest Question 1



Although adding a title to a text may seem like a subjective activity since different individuals can interpret the content differently. In this particular case, there was an objective answer that best suited the text's content. Consequently, 75% of the participants selected the correct answer, whereas the remaining 25% selected an incorrect one. This high percentage of correct responses suggests that, although the task may seem subjective, in this specific context, there were clear criteria that allowed for the identification of the correct answer. This underscores the importance of understanding the text's content and communicative intent when selecting an appropriate title.

2. Where does Pedro live?

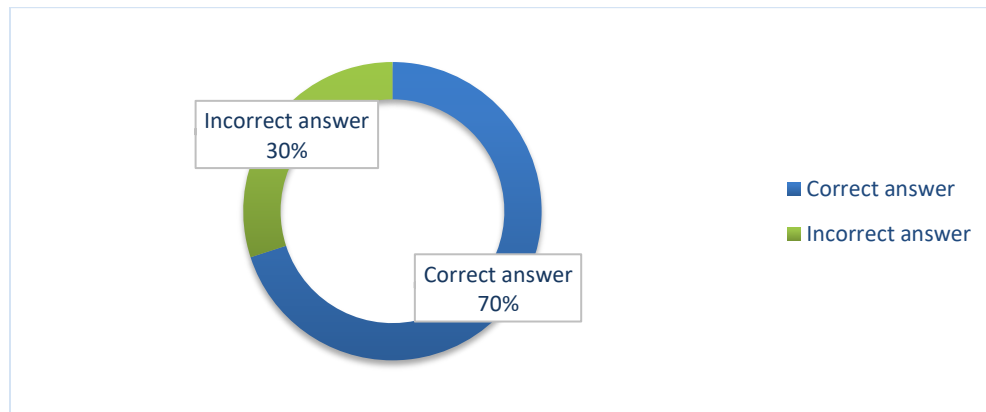


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Figure 5:

Pretest Question 2



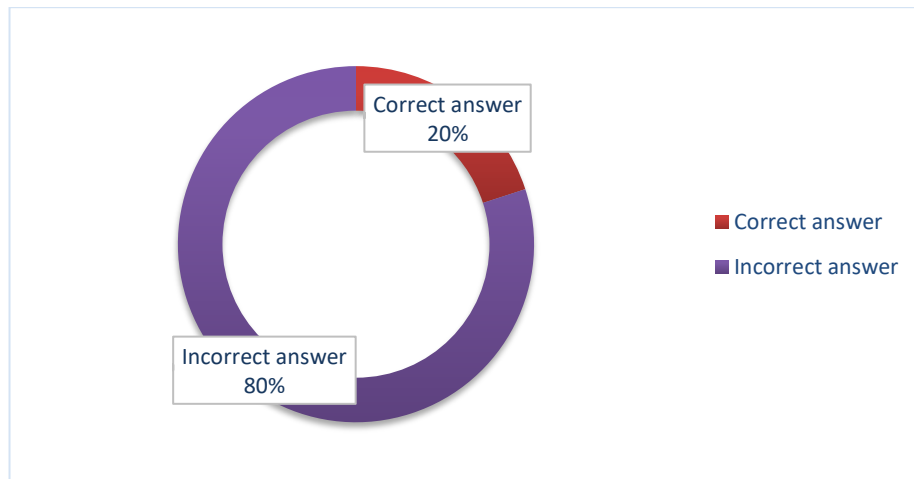
In contrast to the subjective nature of the first question, the second question relied more on reading comprehension than subjectivity. This shift in focus meant that students had to recognize the contents of the textbook to select the correct answer. Consequently, 30% of students answered this question incorrectly, while 70% provided the correct response.

This difference in the distribution of correct and incorrect answers focuses the value of not only comprehending the information but also being able to apply that understanding to specific questions or tasks. It underscores the significance of developing strong reading comprehension skills for academic success.

3. What is mentioned as being larger?

Figure 6:

Pretest Question 3



Question number three reveals a significant trend among students who struggle with reading comprehension. Only 20% of students answered this question correctly, while a concerning 80% provided incorrect responses. This notable disparity suggests a potential challenge for students in effectively employing the scanning reading subskill. According to the Cambridge Dictionary, scanning involves rapidly reading a text to identify specific information, such as names or figures (2024).

The fact that such a large proportion of students answered incorrectly despite the targeted nature of the question indicates a potential difficulty in implementing this reading strategy. This highlights the importance of not only teaching reading comprehension skills but also ensuring that students are proficient in applying specific techniques like scanning to extract information accurately from texts.

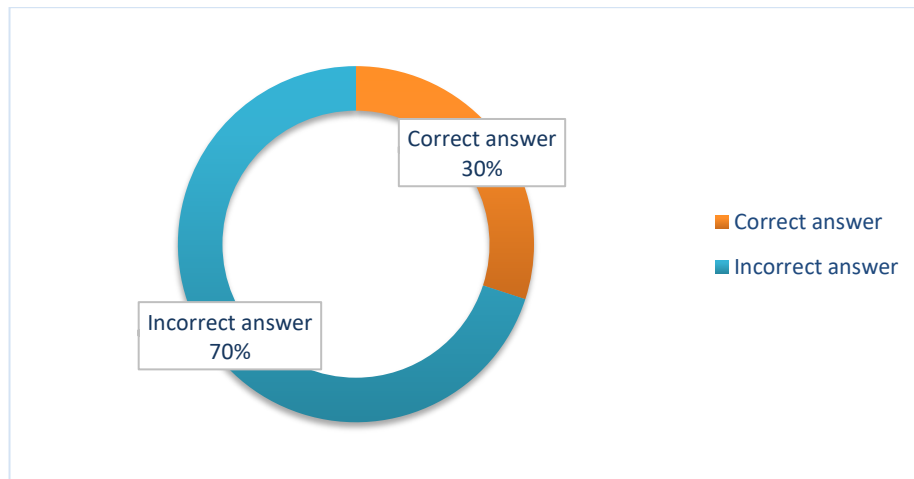
4. What do both Pedro and Jimmy love?



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Figure 7:

Pretest Question 4

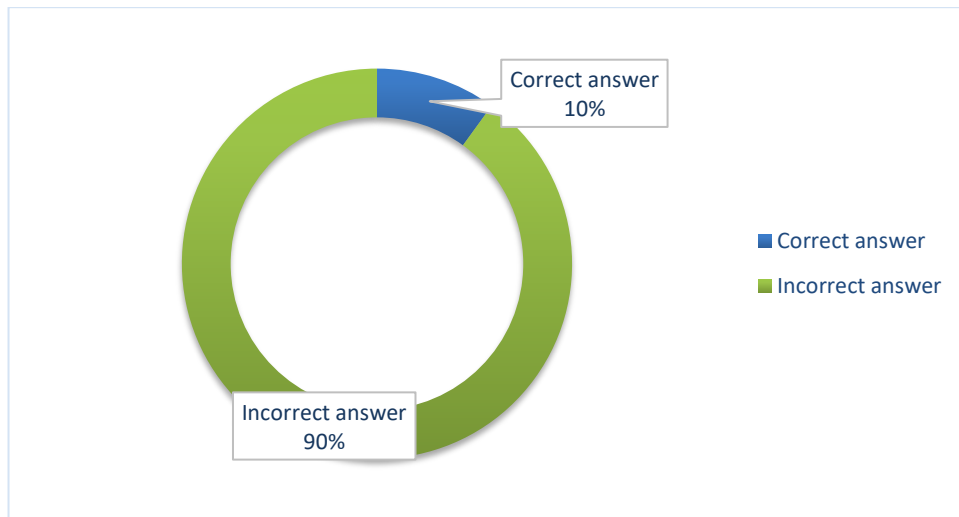


The results of question number four demonstrate a persistent pattern where roughly 70% of the answers were incorrect, placing only 30% as correct responses. This consistent imbalance implies that the majority of participants encountered challenges in comprehending or providing accurate responses to the question. Such a discrepancy points towards potential weaknesses in knowledge acquisition or understanding among the respondents. It underscores the need for targeted interventions or additional support in areas where students may be struggling, aiming to strengthen their comprehension and analytical skills to achieve better outcomes in future assessments.

5. In the passage, the word “*narrow*” most means:

Figure 8:

Pretest Question 5



The significant discrepancy between the 10% of correct responses and the overwhelming 90% of incorrect responses in question number five suggests a concerning deficiency in students' vocabulary, specifically regarding their understanding of the word "narrow." This situation could indicate a lack of adequate exposure to a variety of words and concepts during their education.

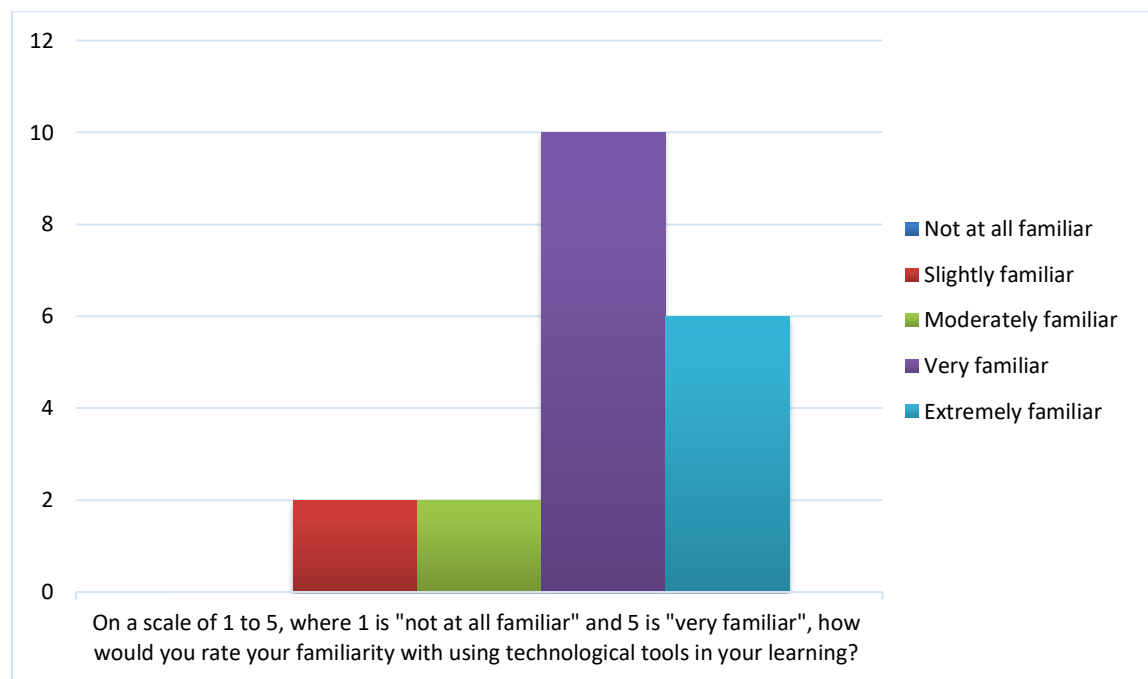
Pretest: Interpretation of the Results II

The interview results of sixth graders are presented below.

- I. On a scale of 1 to 5, where 1 is "not at all familiar" and 5 is "very familiar," how would you rate your familiarity with using technological tools in your learning?

Figure 9:

Pretest Question 6



Addressing question one, which aimed to determine the interviewees' prior experiences, opinions, and degree of exposure to technical tools. The responses provided insight into a number of important conclusions.

First of all, it is interesting to note that 80% of the students said that they had prior experience with technology tools. Of these totals, 30% of students said they were remarkably familiar with technology, and 50% said they were familiar with it to a high level. This suggests that a significant percentage of EFL students have a high degree of skill and comfort when it comes to using technology for different activities. Students take control of the learning process and become owners of it when they are given the resources they need to share, create, and keep track of their own development. (The Aspen Institute, 2014, referred to by Shatri, 2020).



On the other hand, the results also show that 20% of the student body, which represented a minority, reported having little to no experience with technology learning resources. This percentage may be lower than the majority of students who said they had prior experience with technology. Nevertheless, it indicates that there is a smaller group of students that might need more help or resources to improve their technological proficiency. (Hendricks & Bailey, 2014) assert that an essential first step in online education is evaluating students' technological proficiency. It has been accepted that effort is necessary to master any technology. (Girasoli & Hannafin, 2008).

Furthermore, the development of projects that effectively use technology, such as the creation of a virtual environment in Moodle, to achieve learning outcomes, especially in the field of fostering reading, is more impactful and engaging for both students and teachers.

- II. On a scale of 1 to 5, where 1 is “not effective at all” and 5 is “very effective,” how would you rate the effectiveness of virtual learning environments (like Moodle) for improving your reading comprehension?

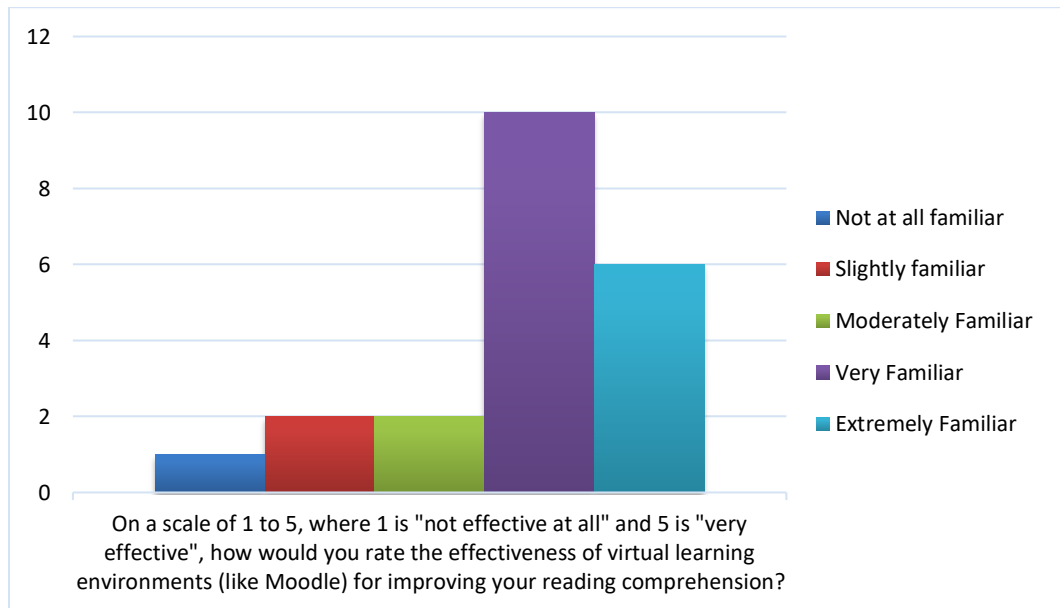


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Figure 10:

Pretest Question 7



In response to the second question, it becomes evident that the students exhibit a notable comfort with technology. This aligns with the common adoption of technology in various aspects of modern life, including education. Criollo (2023) and Cordero (2020) argue that technology, along with its virtual platforms in the classroom, serve as a positive motivator, reigniting students' enthusiasm for learning. This trend highlights the importance of acknowledging students' current technological proficiency and motivation when improving learning outcomes (Ceferino, 2022). As a result, students not only know how to use technology for school, but they also understand how important it is to improve their educational experiences.

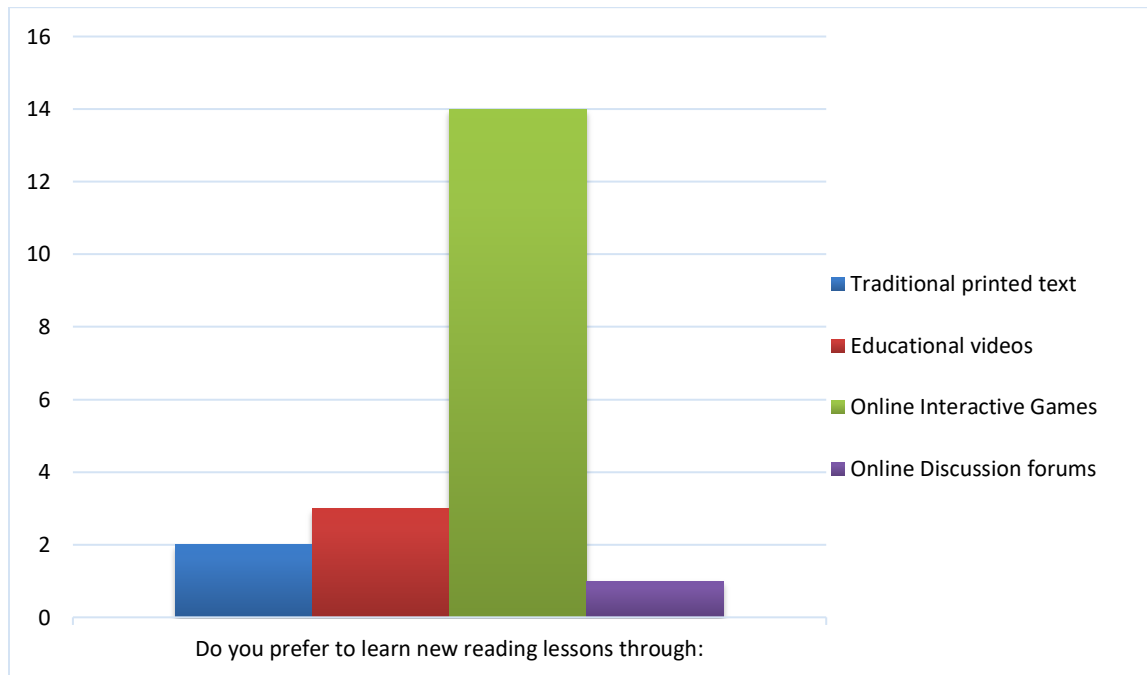
III. Do you prefer to learn new reading lessons through



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Figure 11:

Pretest Question 8



Regarding question number three, which asked about the students' preferred methods of learning, the replies received provided valuable insight on the variety of ways that students choose to interact with course material. The learning experience is optimized when instructional approaches and learning activities are designed with students' preferences in mind, which are influenced by their preferences. Interactive online games emerged as the most popular choice among the options offered; 70% of students indicated a preference for this style of learning. This result emphasizes how attractive and successful gamified learning environments are at catching students' attention, encouraging engagement, and supporting significant learning objectives. Online games' interactive elements not only increase student engagement and enjoyment but also foster teamwork, critical thinking, and problem-solving skills.



Furthermore, it is interesting that a smaller but statistically significant fraction of students, 15%, said that their preferred method of learning was watching instructional videos. Using multimedia components like visuals, animations, and instructional videos assists diverse learning preferences and improves students' comprehension and memory of the material. Additionally, 10% of students said that they preferred to learn using traditional printed texts. Additionally, 5% of students indicated that they would rather learn through online discussion groups.

To summarize, the wide range of learning styles that students exhibit highlights the significance of implementing an integrated approach to instructional design that encompasses several learning modalities and technology.

Brief Conclusion

- It is crucial to minimize the vocabulary gap by providing activities and resources that foster the acquisition and understanding of a wide range of terms, as well as integrating effective vocabulary teaching strategies into Moodle.
- Students exhibit a high degree of familiarity with technological tools, illustrating the extensive incorporation of technology in education. This emphasizes how crucial the implementation and execution of an online platform like Moodle are to improve learning outcomes and experiences.
- Even though a significant number of students show that they are comfortable using technology, it is crucial to address the requirements of individuals who might not have had as much exposure or expertise.



- Educators can modify the implementation of VLEs to align with students. Addressing individual needs and preferences, thus promoting a more supportive and immersive learning environment.

Language Proficiency of Beneficiary Students

The Common European Framework of Reference for Languages (CEFR), which has levels ranging from pre-A1 (beginning) to C2 (proficient), is a frequently used benchmark for assessing language competency. Students from the pre-A1 to A1 level are regarded as beginners and have particular language skills and limits. Cambridge University (2024). In the same line, Pearson (2024) claims that language proficiency and understanding are measured against an international standard called the Common European Framework of References for Languages (CEFR).

Six different English levels are included in this standard: A1, A2, B1, B2, C1, and C2. Although less common, some universities also accept the pre-A1 level.

An explanation of what beneficiary students can and cannot do regarding reading skills is provided below.

Beneficiary Students' Capabilities

Pupils are able to comprehend simple sentences and basic vocabulary in written materials. They are able to identify, for example, popular words associated with commonplace things, well-known names, and simple actions. They can interact with relatively simple literature, such as children's books or simple educational materials, because of this capacity.

Beneficiary students are able to recognize and comprehend well-known names, words, and simple phrases. Thus, children can understand simple notes, emails, and private letters in brief, understandable sentences.



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Limitations of Beneficiary Students

The limitations of sixth grader to consistently infer the meanings of unfamiliar words from context is a major drawback. In contrast to more advanced learners, they lack the background vocabulary and contextual knowledge needed to infer meanings from texts, which might make it more difficult for them to understand new materials.

On the other hand, Beneficiary students present a difficulty understanding the complexities of texts. These students also have trouble understanding certain texts that contain foreign vocabulary. Due to their low language skills, they are unable to grasp nuances or implicit meanings, which are frequently expressed using colloquial language, cultural allusions, or uncommon words.

Contextual Considerations

It is crucial to remember that the descriptions given are general and may change depending on the unique needs of each learner as well as unique situational settings. A learner's aptitude and development can be influenced by a variety of factors, including their exposure to the language, their mother tongue, and their learning environment. As a result, these broad traits are helpful in understanding the normal abilities of pre-A1 to A1 students.

To sum up, according to the CEFR framework, beneficiary students are at the pre-A1 to A1 level since they demonstrate basic comprehension and identification skills in straightforward written contexts, but they have a lot of difficulty reading subtle texts and determining the meanings of unexpected words.



CHAPTER 4: RESEARCH PROPOSAL

The universal language is English. Its importance is shown in the fields of worldwide communication and science, where English is used in about 75% of published works. The focus is on acquiring the language as a whole, including speaking, listening, reading, and writing in natural settings. Nowadays, a fundamental ability required for both academic performance and lifetime learning is reading comprehension. The significance of understanding texts for academic success cannot be reiterated. The estimation of students' reading skills points to challenges with comprehension of texts, particularly academic ones, and with producing original writing that is distinct from plagiarized works (Hernandez, 2020). Proficient reading abilities are essential to every aspect of education. Furthermore, it is a constant requirement for students to understand and evaluate a variety of texts.

Students often face challenges in reading. EFL students may find it complicated to understand the main ideas of the text or contribute meaningfully to class discussions about reading comprehension or storytelling. EFL students acknowledge challenges in reading comprehension and written expression, attributing variations in performance to factors such as motivation to learn and the level of teacher engagement (González de la Torre 2023, p. 2).

In contrast, educators frequently struggle to successfully engage children and cultivate their reading abilities. Understanding how important it is to solve these issues, this study hints at investigating how effectively sixth-grade students at “Crespo Toral” School may improve their reading comprehension abilities by using a Virtual Learning Environment (VLE).

Proposal Description

This proposal has considered Constructivist Learning Theory due to its technological-educational framework. Constructivism views learning as a process of constructing new



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knowledge on the foundation of prior understanding, akin to the construction of a building (Tprestianni, 2023). Whereas, the online learning environment Moodle has been chosen to oversee the English teaching and learning process. After comparing Moodle to many other virtual learning environments; it was determined that Moodle better matched the stated goals. Other reasons for the decision included Moodle’s simplicity and ease of use, its abundance of resources and activities, and its suitability for use.

Table 8

Comparison of Popular Virtual Learning Environments

Feature	Moodle	Canvas	Schoology	Google Classroom	Edmodo	Blackboard Learn
Open Source	Yes	Limited	Limited	Yes	No	Limited
Pricing Model	Free	Commercial	Commercial	Free	Freemium	Commercial
Attendance Record	Yes	No	Yes	No	No	Freemium
Collaboration and assessment Tools	Yes	Limited	Limited	Limited	Yes	Limited
Course Content	100% Customizable	Customizable	Customizable	Limited	Limited	Customizable
Communication Tools	Forums, Messaging, Video	Messaging, Video	Messaging, Video	Messaging	Messaging	Messaging, Video
User-friendly Interface	Yes	Yes	No	Customizable	Yes	No
Suitable for Sixth Graders	Yes	Yes	No	No	No	No

Note: researchers’ elaboration

As seen in *table 8*; Moodle definitely makes personalized instruction possible by granting teachers access to a diverse array of texts and resources through a unified platform. The interface



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that runs this platform is simple and intuitive for both teachers and students, and it also uses dynamic structure to allow developers to make the necessary changes to the code (Lardy, 2021, as cited by Vázquez, 2022, p. 40). Moodle enables teachers to successfully oversee students' diverse learning styles and competence levels. The Moodle platform provides a safe space for both educators and students to engage and build learning communities (Vázquez, 2022). Furthermore, Moodle encourages student independence and self-directed learning by providing chances for personal investigation. Students can take part in interactive exercises intended to improve comprehension abilities, read texts at their own pace, and have conversations with peers.

Moodle

The increasing utilization of digital technologies in education underscores the importance of understanding how virtual settings affect reading abilities to drive curriculum creation and teaching strategies. As Palacios et al. (2021) pointed out, Virtual Learning Environments (VLEs) are highly interactive due to the utilization of activities and information that can be cooperatively completed with computer tools that are suitable for the digital platform that is being used to implement them.

Moodle stands for:

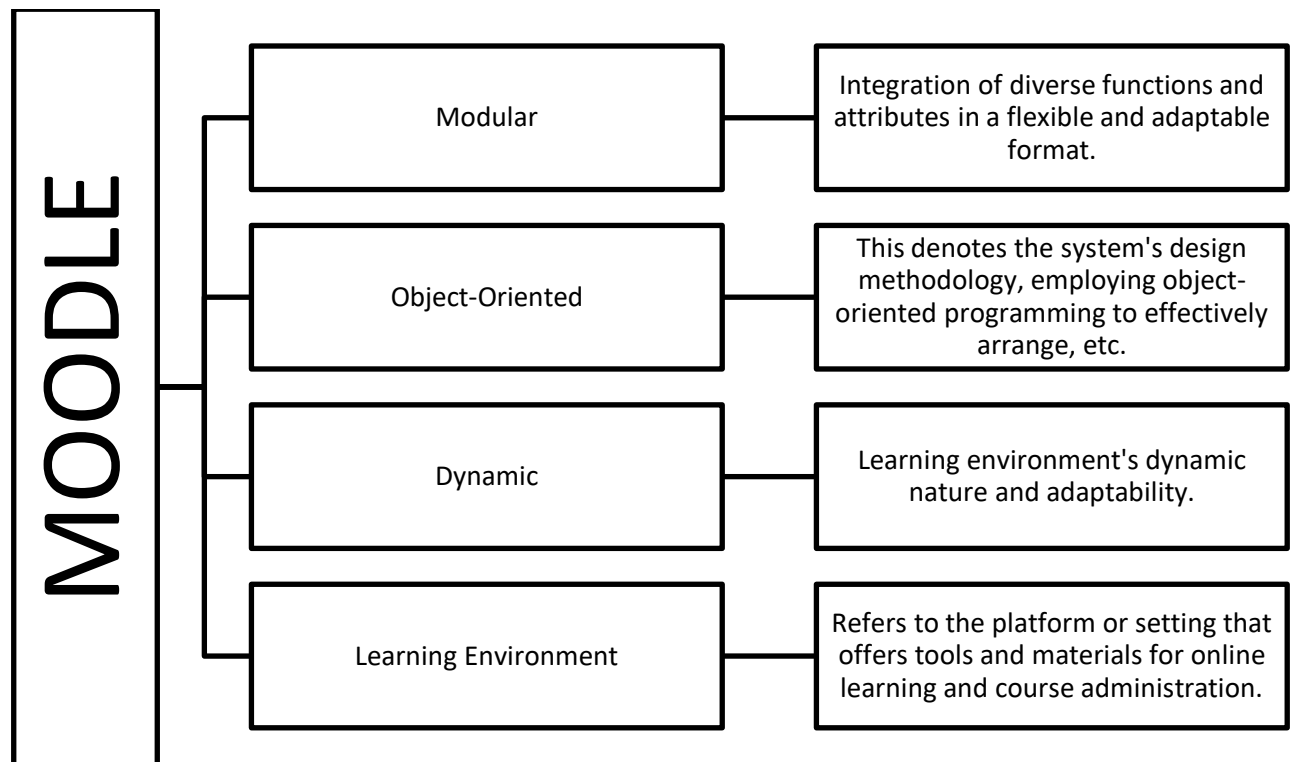


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Table 9

LMS: Moodle



Note: Researchers' elaboration.

Moodle represents an open-source Learning Management System (LMS) that equips educators with a collection of tools and functionalities aimed at crafting and overseeing online courses. This platform facilitates the organization of course resources, the development of quizzes and assignments, the facilitation of discussion forums, and the monitoring of student advancement (Ziraba et al., 2020).

Thus, using Moodle, an open-source learning platform that is commonly used in educational settings, to engage students in meaningful reading experiences. Teachers can use Moodle to integrate a variety of multimedia resources, interactive exercises, and collaboration tools. According to Cansu (2010), Moodle stood out prominently among other Learning



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Management Systems (LMS) due to its multitude of features aimed at enhancing educational quality and encompassing essential tools requisite for an e-learning system. Notably, Moodle's accessibility attributes render it a favored option among learners with disabilities, guaranteeing that courses maintain inclusivity and accessibility for all participants. It properly accommodates online and blended learning setups as well as distance education schemes.

Theoretical Principles Applied

The ADDIE Approach

One of the most well-known instructional design frameworks is the ADDIE model. The ADDIE form incorporates five phases: Analysis, Design, Development, Implementation, and Evaluation. Many professors and trainers use the ADDIE model as a teaching model when creating educational and training materials. Σπατιώτη et al. (2022). In this same perspective, Peterson (2003) adds that by implementing a learner-centered strategy instead of a teacher-centered one, program or course makers can increase the program's relevance and significance for students by using the ADDIE model.

Below there is a quick summary of each stage.

Analysis

In this phase, educators fully analyze the student's characteristics, and the learning objectives. Moreover, teachers determine if there are obstacles or advantages concerned the Virtual Environment, such as learner engagement, technological limitations, or accessibility, such as an internet connection or electricity.

Design

During this stage, professors consider the advantages and disadvantages of online gamified platforms while creating the structure and presentation of the class in a VE. After that,



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teachers provide a user interface such as Moodle to facilitate access to resources (downloadable or linked) and activities that students have to develop, synchronous or asynchronous. In this stage, also create evaluations that are easy to administer and track virtually.

Development

After the design plan, teachers go on to the development stage, where they create the learning material and content. Teachers follow a designed plan when creating educational materials, such as by writing educational resources, generating, or creating multimedia content.

Implementation

During the implementation phase, learners get the training program from teachers or facilitators. This could imply face-to-face and online training delivered using an LMS, online instruction delivered through a classroom, or a blended approach. Throughout the implementation process, teachers offer students' support services. This could involve technical issue solving, VLE training, and access to online materials and resources, among others.

Evaluation

Evaluation, the last stage of the ADDIE model, is a crucial point of reference for determining how effective the educational program is by the end of the program. In addition, a summative or formative evaluation is conducted to gain an understanding of the overall effectiveness and impact of the education. Teachers can continuously improve their work based on feedback and testing since formative evaluation takes place periodically during the development and implementation phases.

Summarizing, the ADDIE model provides an organized method for teachers to follow while they analyze, plan, develop, implement, and assess their work. Teachers may satisfy the



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varied demands of EFL students and accomplish the expected learning goals by using the ADDIE model to build effective and engaging online learning experiences.

Gamification

Gamification involves applying elements and principles commonly found in games to non-game situations. Gamification has evolved as an important facet of the educational environment, particularly in e-learning situations (Al-Hafdi & Alhalafawy, 2024). This approach integrates game mechanics like points, badges, leaderboards, and challenges into areas such as education, marketing, productivity, and behavior modification. Its aim is to enhance enjoyment, motivation, and engagement in these activities by making them more interactive and rewarding.

Online Assessment and Quizzes

Online assessments and quizzes involve the use of digital tools and platforms to produce, control, and evaluate tests, quizzes, surveys, and other forms of evaluation in an online or virtual setting. According to Gamage et al. (2019), new technology and educational design techniques are constantly reinventing the role of experts in the field.

Componential Model of Reading

The above model organizes reading into four component skills: decoding, fluency, vocabulary, and understanding, each of them influences broadly reading competency. Joshi & Aaron (2012) emphasize the significance of developing each of these skills independently in order to become proficient readers. Each of these skills is essential for reading development and overall literacy accomplishment.



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Table 10

Reading component skills

Decoding:	The ability to transform written symbols into spoken words
Fluency:	The capacity to read quickly, accurately, and expressively, allowing for better comprehension of the text.
Vocabulary	Understanding of language roots, prefixes, and suffixes, as well as using clues from the context to infer meanings.
Understanding	Comprehending the text's significance and relevance, including the ability to recognize important concepts, deduce implicit details, and summarize key parts.
Note: Researchers' elaboration	

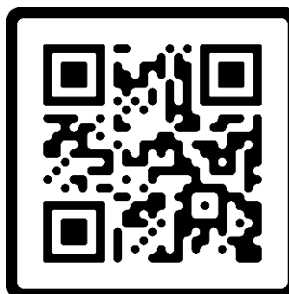
Overview of the Contribution

The virtual environment in Moodle to boost reading for sixth graders is found at the following link: <https://n9.cl/xy5zu>

Also, it can be accessed through the following QR code:

Figure 12

Moodle QR



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The online program called: “virtual environment in Moodle to boost reading on sixth graders” lasted 3 hours per week, during 8 uninterrupted weeks, which add up to a total of 240 hours of training divided into four units plus a general unit that works as an informative unit. During the implementation of the proposal, students carried out different activities that helped them improve their reading skills in English, which are briefly listed below.

- Short readings with true and false questions.
- Gamified readings with and without grading
- Sending audios and/or videos reading aloud. (by students)
- Activities based on gamification to expand vocabulary.
- Reading comprehension tests and evaluations.
- Recreational activities based on skimming, scanning and vocabulary, among others.
- Word recognition activities, with the aim of improving reading fluency.
- Gamified activities to improve decoding in English.

General appearance of the VLE

The virtual learning environment in Moodle presents the following characteristics: a general page where the Remigio Crespo Toral school logo acts as presence and security for the student. The name of the program, its authors, and the name of the tutor. Further down, in the same section, there are important data such as: the announcement section and doubt forum, a link to access the WhatsApp application to chat with the teacher (just in case), and the syllabus of the subject, which is conducted under the ADDIE approach. Finally, a short presentation of the teachers (See Annex-G.)

Internet Resources Utilized



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Many online resources and downloadable materials, in addition to the Virtual Environment's integration with Moodle, greatly enhanced the educational process. A closer look at a few of them is listed below.

Table 11

Internet Tools

Kahoot!	This interactive quiz platform was utilized to gamify learning sessions, making them engaging and dynamic. Though Kahoot! learning sessions were gamified to make them more dynamic and engaging by using this interactive quiz platform.
YouTube	Adding instructional YouTube videos to the virtual environment offered both visual and aural stimuli to accommodate different learning styles. YouTube provided an abundance of multimedia resources to support conventional teaching methods and promote deeper understanding, ranging from instructional tutorials to virtual field trips.
Padlet	Using Padlet, students exchange ideas, resources, and feedback in an aesthetically pleasing and well-organized way.
Lifeworksheets	It covers a broad range of subjects and exercises intended to aid students in gaining a variety of life skills, including communication, problem-solving, goal-setting, time management, financial literacy, and self-reflection.
Wordwall	It is an open display in a classroom that lists the words that the students are currently learning. Word walls can highlight words that are used frequently, provide examples of word studies, use academic language, and introduce words from the subject areas.
Printinterest	Pinterest, which holds a prominent position in the rankings of the top 10 social media platforms, can be used as an educational tool by curating visual content and finding ideas for lesson plans and other educational materials.

Note: Researchers' elaboration



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Validation of Experts

Before implementing the Virtual Learning Environment (VLE) on Moodle, researchers invite English professors and virtual platform professionals to examine the platform's structure. This ensures that the VLE matches educational objectives and provides an effective learning experience for students. During this phase, teachers are given the opportunity to explore the functionalities and features of the VLE. They can navigate through different sections, such as course materials, assignments, quizzes, and communication tools, to understand how the platform will boost students reading comprehension and engagement.

Additionally, professionals on virtual platforms contribute essential input regarding Moodle's usability, accessibility, and overall design. They assess the interface, navigation flow, and user experience to identify potential problems or opportunities for improvement (See Annex D.)

Finally, feedback from both English teachers and virtual platform professionals is requested and appreciated (see annex E). This input may include suggestions for improving the user interface, reorganizing course materials, improving communication tools, or incorporating new features to improve the learning experience for EFL students.

Expert Selection and Feedback Process

English graduates and master's degree holders working in elementary, secondary, or postsecondary education were contacted through different ways, this includes phone, email, Facebook, WhatsApp, and other channels. A number of six experts are eager to contribute to help with this thesis. After that, they receive an invitation to attend a Zoom meeting where researchers give an overview of the project. This includes describing the goal, targets, and protocols of the project.



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After the presentation, the experts are led by the researchers through a demonstration of Moodle's Virtual Environment. In this session, the experts can explore the various features and components of the platform through a hands-on navigation session.

Lastly, the experts are questioned on a range of topics intended to assess the efficiency and usability of the virtual learning environment, and this is how the researchers gather input from the experts. The platform's functionality, user interface, educational value of the gamification elements, and other technological tools integrated into the system are all covered in these questions.

Table 12

Experts' Validation Rubric

	QUESTION	VERY SUITABLE	SUITABLE	NOT SUITABLE
1	What is your overall opinion of the virtual classroom's design?			
2	What do you think of the way the virtual classroom looks, with its various colors and images?			
3	Both the theoretical material and the resources available on the platform are?			
4	The activities where students interact with the virtual classroom and its external tools are?			
5	Does the CEFR apply to students at the preA1–A1 level on the virtual platform?			

6 Would you recommend employing or choosing the present Learning Environment in your classes to enhance English language proficiency in reading?

Note: Researchers' elaboration



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Table 13:*List of external experts*

Expert's full name	Field of knowledge	Senescyt registration	Years of experience
Espinosa Lascano Luis Gabriel	Master En Educación, Docencia y Tecnología	4842217399	10 years
Ruiz Criollo Jessica Paulina	Magister en Educación Mención en gestión del Aprendizaje Mediado por Tic Licenciada en Ciencias de la Educación Especialización Inglés	1051-2022-2550088 1015-2018-1993413	8 years
Montesdeoca Rosero Anderson Aquiles	English – Master Candidate Licenciado en Ciencias de la Educación especialización Inglés	1015-2023-2656417	2 years
Cisneros Cisneros María Verónica	Licenciada en Pedagogía de los Idiomas Nacionales y Extranjeros Mención Enseñanza del Inglés	1007-2021-2336342	15 years
Cuascota Lechón Karenth Daniela	Magister en Educación Mención en gestión del Aprendizaje Mediado por Tic Licenciada en Ciencias de la Educación Especialización Inglés Formación de Formadores	1051-2021-2290941 1015-2018-1995195 SETEC-2135-CCL-197619	7 years



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Chicaiza Fernández Miryan Irene	<i>PHD Candidate at Universidad Nacional de Rosario</i>		
	Magister En Lingüística y Didáctica De La Enseñanza de Idiomas Extranjeros Licenciada en Ciencias de la Educación Mención Inglés	1005-2018-1932659 1005-07-751803	23 years

Note: Researchers' elaboration

Once comments and suggestions for improvement are received, as well as validation from external experts. Subsequently, the researchers proceed to train students on the use of the Platform, and the implementation of the present proposal, which begins on March 11th, 2024, and ends on May 2nd, 2024. (see annex-g)

It is important to note that since the VLE is focused on autonomous and asynchronous learning, the completion dates could vary among the participants in this study.

Assessing Student Learning: Pretest, Intervention, and Posttest Analysis

After the completion of an 8-week instructional period involving 240 hours, the evaluation of student learning growth becomes important in determining the effectiveness of the educational VLE in Moodle. This conducts a complete assessment of student learning outcomes, using pretest evaluations, specific strategies, and posttest analysis as essential components of the evaluation process.

Subsequently, an extensive examination of the post-test data following the adoption of the VLE to boost reading has revealed a number of significant findings that provide insightful information about its efficacy.

Some of the finding, compared to the pretest, are listed below.

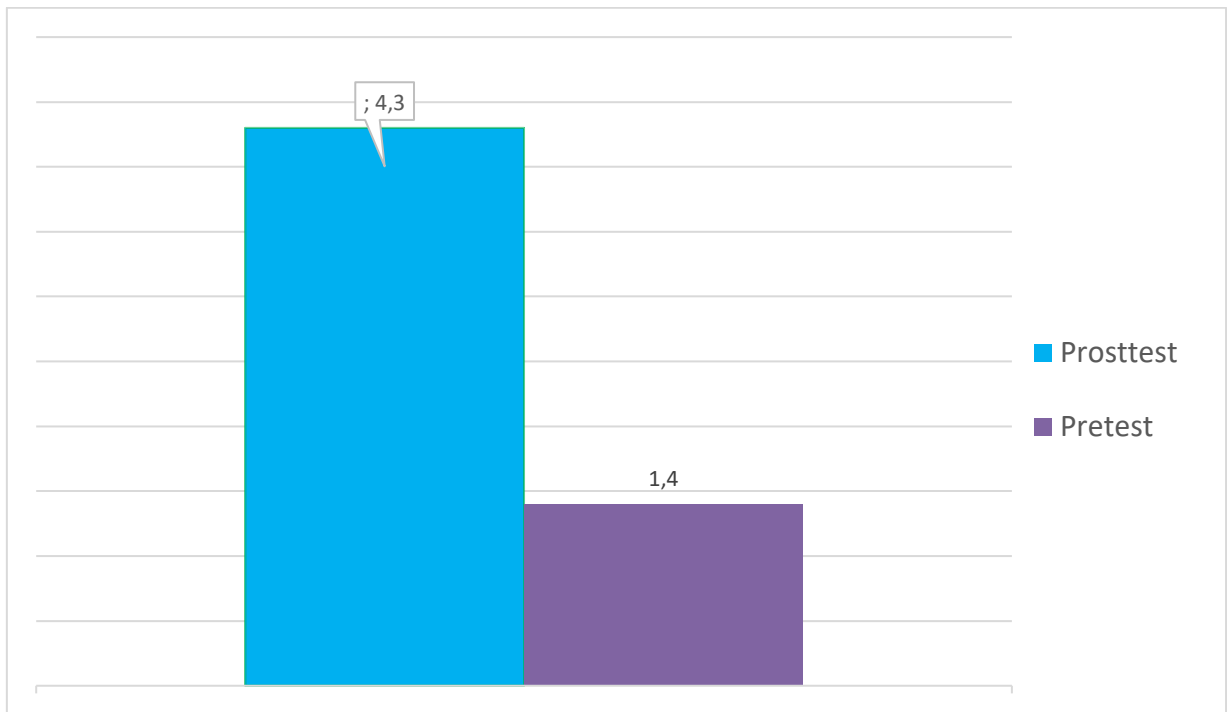


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Figure 13

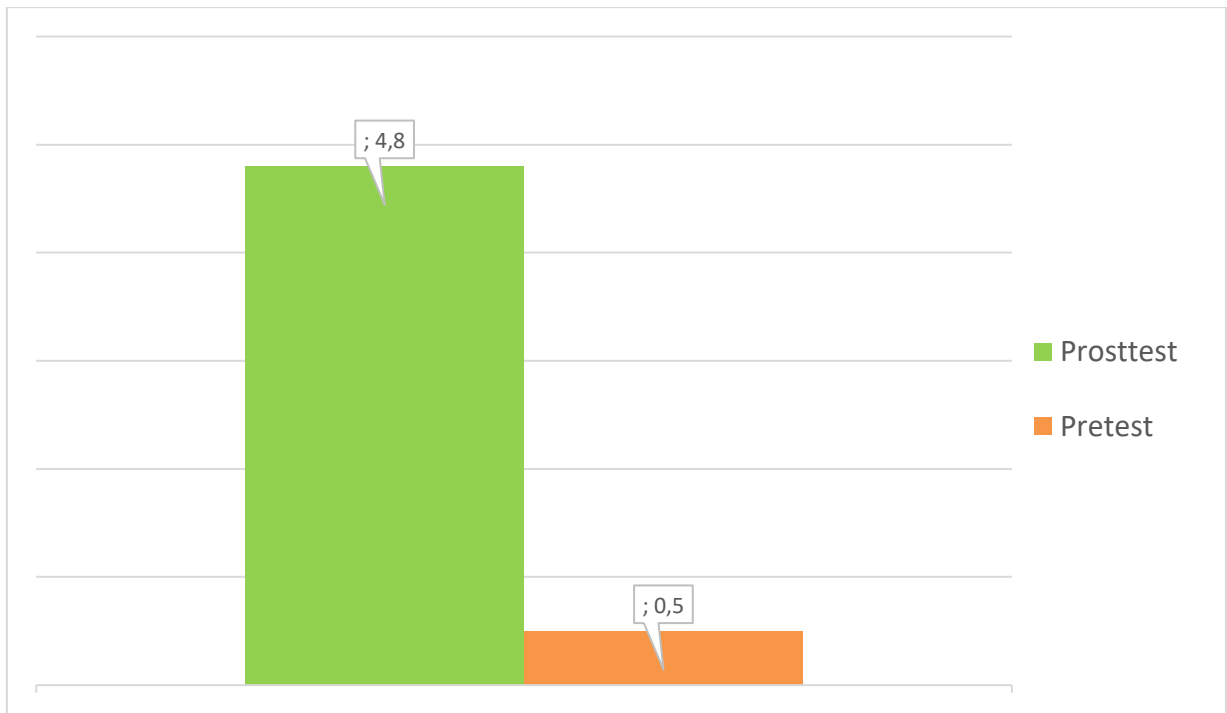
Posttest: Reading Improvement Habits



A significant portion of students consistently committed to reading for at least six minutes on the virtual platform, as shown in Figure 13. This persistent involvement shows a promising development in their reading habits and a growing dedication to the educational process. According to the data, the structure and accessibility of the virtual platform may be creating an environment that is better suited for extended reading activities. The students' commitment to following this schedule demonstrates both their commitment and how well the online platform works to encourage positive learning habits.

Figure 14

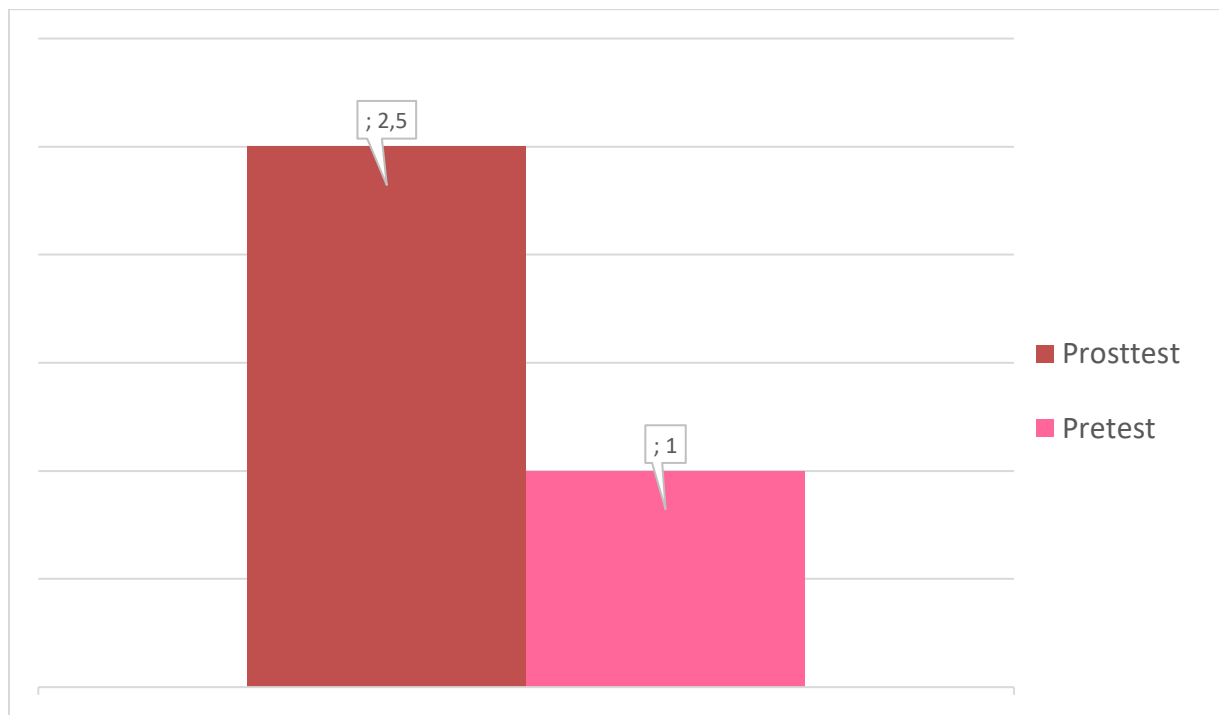
Posttest: Students' Interest on VLE



It is noteworthy how well all of the extra materials offered in the online setting were used. These materials included links to websites with additional reading, instructional videos, and interactive reading exercises based on gamification. This use indicates a greater interest in a variety of learning resources, implying that the online setting successfully accommodates a range of learning styles and improves accessibility to more educational materials.

Figure 15

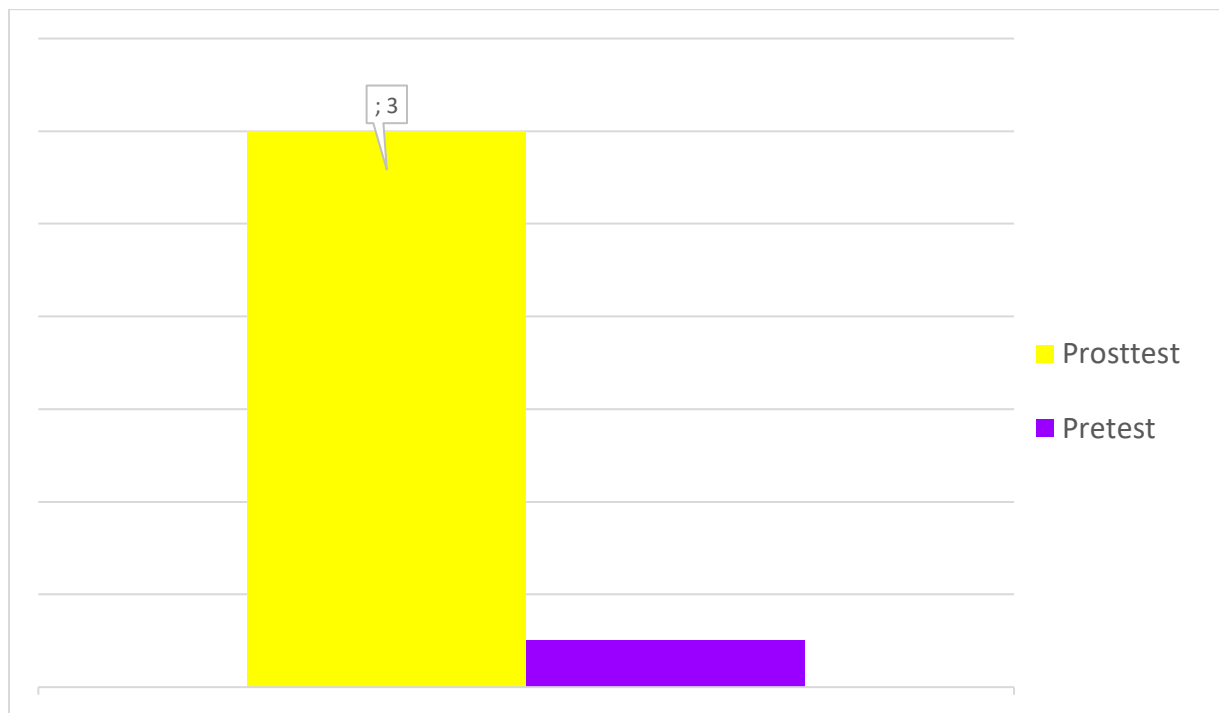
Posttest: Reading Comprehension Development



The findings of the post-test show clear gains in the students' comprehension of what they have read, indicating the beneficial influence of the virtual environment on their capacity to understand and evaluate texts. Students have demonstrated a stronger comprehension of the reading materials. Furthermore, multimedia components, including pictures, movies, and animations, were used to create a multimodal learning environment that attracted a variety of learning preferences and encouraged deeper interaction with the material.

Figure 16

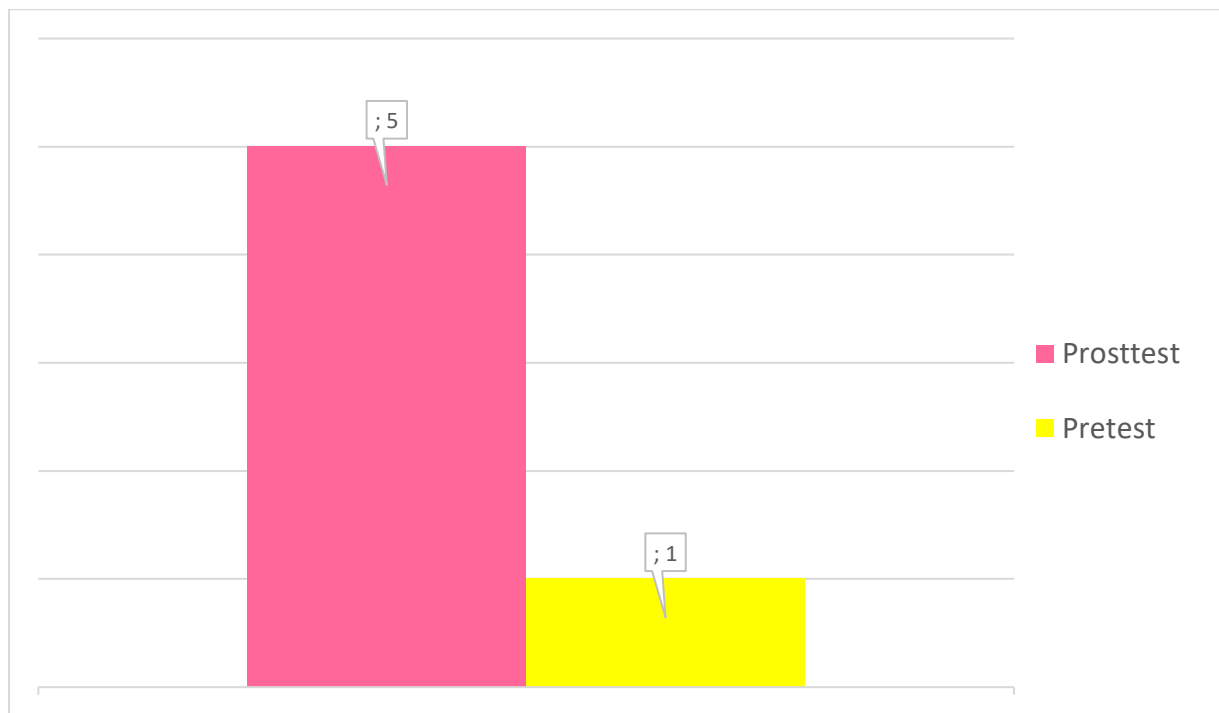
Posttest: Student's Self-assurance on English Reading



The incorporation of tools for vocabulary development into the VLE empowered notable progress in students' proficiency. With interactive activities like finding synonyms and antonyms, students showed that they could increase their vocabulary and use new words in context more skillfully. This improved their reading comprehension skills overall and gave them more self-assurance when it came to speaking clearly.

Figure 17

Posttest: Student's Engagement and Motivation



Additionally, students indicated that their enthusiasm and engagement with learning materials had improved, as seen by their increased sense of autonomy in choosing and using new reading resources within the virtual environment. Students were given the freedom to take charge of their education, which encouraged accountability and the development of self-directed learning abilities.

Overall, the post-test results offer strong proof of the virtual environment's effectiveness in supporting a comprehensive strategy for reading instruction. By means of its capacity to stimulate active engagement, facilitate comprehension, enable vocabulary expansion, and encourage independence, the online platform provides EFL students with the necessary means of attaining reading proficiency. Students' confidence and independence as learners are fostered in



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addition to their reading abilities being improved by this all-inclusive support system. The results demonstrate the effectiveness of the intervention and emphasize how important it is to use digital resources to supplement conventional teaching techniques.

These revelations also provide insightful advice for improving and adjusting upcoming versions of reading education in virtual settings. Through continuous improvement of learning outcomes, this method of improvement guarantees that actions stay responsive to changing pedagogical demands and technological advancements. By taking advantage of the opportunities that come with digital platforms that help students reach their full potential as readers.



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CONCLUSIONS

The findings of this study highlight the efficacy of incorporating a Virtual Learning Environment (VLE) using Moodle, combined with technology resources, in improving sixth-grade students' reading comprehension skills at "Crespo Toral" School.

- **Achievement of Research Objectives**

The entire method used in this study, which included the deployment of a Virtual Learning Environment (VLE) using Moodle, resulted in significant improvements in sixth-grade students' reading comprehension abilities. The clear objectives established at the start of the study project have not only been reached, but exceeded, demonstrating the usefulness of the approaches used.

- **Positive Impact on Student Motivation and Performance**

The shift to virtual learning environments has clearly renewed student engagement and motivation, overcoming the limits commonly associated with traditional classroom settings. Besides, the incorporation of gamification elements and interactive learning platforms has not only increased students' enthusiasm for learning but has also resulted in tangible improvements in their reading comprehension skills, as evidenced by a significant 20% increase in proficiency levels.

- **Effectiveness of Instructional Design ADDIE and Moodle Platform**

The accurate use of the ADDIE instructional design technique, as well as the smooth integration of the Moodle platform, have been invaluable to the accomplishment. This immersive and dynamic learning environment is suitable for the development of English reading proficiency



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in EFL students by following a methodical instructional design approach and exploiting Moodle's multifunctionality.

- **Relevance and Long-Term Practical Applications**

The impacts of this study go far beyond academic discourse, as it marks the beginning of a new era in English language training at Remigio Crespo Toral. The construction of ongoing English courses within virtual learning environments that are adaptable and flexible holds promise for the long-term improvement of students' linguistic competencies over the academic year and beyond.

Research Limitations

While this study has provided essential information on the effectiveness of virtual learning environments in improving students' reading comprehension skills, it is critical to acknowledge and address many inherent obstacles that have appeared during the research process.

Limited Parental Involvement

One significant restriction, and the most constant that was faced during the research was the level of parental involvement or assistance in the deployment of the virtual learning environment tasks and activities. Despite extensive efforts to engage parents in the learning process, there was still some resistance and disengagement among specific groups of parents. This lack of active parental participation may have had an unintended consequence in terms of EFL students' ability to fully benefit from the virtual learning environment.

Technological Challenges



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Yet another important obstacle faced during the investigation was technological setup and connectivity issues. EFL students often struggled with remembering access to the virtual learning platform and participating in online activities on some external online tools where internet connectivity was needed. Furthermore, periodic power interruptions and technology malfunctions limited the smooth execution of the virtual learning experience.

Student Apprehension and Resistance

Despite the numerous benefits of virtual learning environments, some students were at first hesitant to engage with the platform. This hesitation may be due to a variety of causes, including unfamiliarity with online learning resources, concerns about technological skills, or a preference for traditional classroom environments. As a result, efforts to fully immerse students in the virtual learning environment may have met with variable degrees of receptivity and involvement.



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RECOMMENDATIONS

In order to improve the effectiveness of VLE in promoting EFL students' English language competence, it is crucial that future research projects concentrate on resolving the noted limitations and expanding upon the knowledge gained from this study.

It is recommended that one of the main focuses, especially working with little ones, should be on encouraging parents to participate more actively in their children's online education. This might involve putting certain communication tactics into practice with the goal of encouraging cooperation and partnership between parents, teachers, and students in order to build an environment that supports learning for the students.

On the other hand, improving internet accessibility to minimize technical obstacles should be implemented, especially in situations where there is inadequate infrastructure and poor connectivity. Lastly, continuous professional development programs are desperately needed if the goal is to give teachers the knowledge and abilities they need to use virtual learning environments in their lessons. This could include courses on technology skills, pedagogical best practices for online instruction, and methods for encouraging student motivation and involvement in virtual learning environments.



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ANNEXES

Annex-A Place of Research Brief Information

EBB Remigio Crespo Toral Information	
Escuela de Educación Básica "Remigio Crespo Toral" located in Cayambe city – Pichincha. The main entrance is located on Libertad Oe-207 & Restauración. Funded in October 1911 as a female school. In 1979 it changed into a mix institution though. Nowadays, there are 53 teachers who work in different schedules. Basic education, 1st to 7th level from 7h00 am in the morning, and 8th to 10th level from 12h45 in the afternoon). Currently, the principal of the institution is the MSc. Diana Valenzuela, Alexandra Pomasqui as vice principal for the morning term, and Juan Jacome as vice principal for the afternoon shift.	 



Annex-B Operationalization Matrix – Dependent Variable

DEPENDENT VARIABLE	CONCEPTUAL DEFINITION	DIMENSIONS	INDICATORS	
Reading proficiency among sixth-grade students	According to Harmer (2007: 99) Reading is useful for language acquisition. Provided that students understand what, they read, the more they read, the better they get at it.	Reading comprehension	Meaning of words	below average, average, above average
			Understanding meaning from context	
			Making inferences	
		Reading fluency	Pace	
			Reading aloud with expression	
		Vocabulary knowledge	Tenses	
			Verbs	
			Linking words	



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Annex-C Operationalization Matrix – Independent Variable

Use of a virtual environment for boost reading	The integration of a digital platform on Moodle designed for developing reading instruction.	Frequency of access	How often students access the virtual environment for reading instruction	Multiple Choice
			Multimedia integration	
		Duration of use	The amount of time students spends engaged with reading activities within the virtual environment.	
			Synchronous or Asynchronous classes	
			Content customization (adaptive learning paths)	
		Gamification	Motivation	
			Presence or absence of gamification elements (badges, levels, competition, etc)	



Annex-G General Overview of Virtual Learning Environment

General Area

Colapsar all



**ESCUELA DE EDUCACIÓN BÁSICA
"REMIGIO CRESPO TORAL"**
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**TRABAJO PRESENTADO EN OPCIÓN AL TÍTULO ACADÉMICO DE
MAGÍSTER EN PEDAGOGÍA DEL INGLÉS COMO LENGUA EXTRANJERA.**

Topic:
VIRTUAL ENVIRONMENT IN MOODLE TO BOOST READING ON SIXTH GRADERS

Authors:
LIMONGI BASANTES DARÍO SANTIAGO
VELALCAZAR ARMAS MÓNICA ESTEFANÍA

Tutor:
EGAS HERRERA DIANA CAROLINA

Meet the Teachers

Hello!

I am Mónica Velalcazar

Everything can change.
And change for good.





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Annex-H Kahoo! Activity



Annex-I YouTube Educational Video



Annex-J Wordwall activity



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Annex-Q Student Reading six min challenge.



Annex-K Interactive Reading

READING ACTIVITY



Hello! My name is Ted. I am forty seven years old. I'm a scientist. I do experiments in a big lab. There's a library next to the lab and I read about new theories there. I love my job because I can do different things. It's really interesting! On Mondays and Wednesdays, I go to work by car with a friend. He is a scientist too and we work together. On Tuesdays and Thursdays I go to the lab by bus. And on Fridays I ride my bike to work. I live with my wife Elvia and my son Chris. We live in California.

I. Read about TED and MATT. Then, answer the questions.

- How old is Ted?
- What is Ted's occupation?
- Where does he work?
- Why does he like his job?
- Who does he live with?
- What is Matt's occupation?
- Where does Matt work?
- What is Matt's favorite dish?
- Does Matt have children?
- Where does Matt live?



II. Are the sentences true or false? Select True/ False/Doesn't say

- TED has a library next to his lab.
- On Mondays and Wednesdays TED goes



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APPENDIX 2 – Research Plan

UNIVERSIDAD BOLIVARIANA DEL ECUADOR

“PLAN DE INVESTIGACIÓN PARA LA PROPUESTA, QUE DEBERÁ SER REVISADO Y APROBADO POR LA COMISIÓN DE TITULACIÓN DE CADA PROGRAMA AL CONCLUIR EL TALLER I”

TITLE OF THE PROPOSAL:

Virtual Environment on Moodle to Boost Reading Skills on Sixth Graders.

AUTHOR 1: Darío Santiago Limongi Basantes

AUTHOR 2: Mónica Estefanía Velalcazar Armas

RESEARCH CONTEXT:

EEB “Remigio Crespo Toral” Cayambe, Pichincha Province, Ecuador.

- **Brief analysis and description of the situation that justifies the presentation of this proposal.**

Students have found it difficult to develop a variety of language abilities, such as speaking, listening, reading, and writing, in an efficient way, even with the admirable efforts of their professors. Because of this, we have focused our research project on the findings of a mixed technique (qualitative and quantitative), which involved surveying thirty eighth-year Basic Education students and interviewing their English teacher.

The main problem is that eighth-year pupils' low reading skills seriously impedes their ability to acquire the English language. That is precisely the reason we are focusing on improving our reading comprehension abilities. Consequently, enhancing these proficiencies positively impacts



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not only vocabulary and grammatical subskills but also speaking, writing, listening, and other language skills.

In addition, our project will be carried out with the aid of technology and a virtual environment covering a broad range of subjects that interest pupils. The virtual world successfully reflects our cultural identity and the collective experiences of our society since it is creative, methodical, inclusive, multinational, and multicultural. In addition, this effort seeks to provide a thorough, excellent education that is imbued with moral principles and psychological assistance.

Statement of the problem to be investigated.

The primary objective of this research is to create a virtual environment to boost English language reading comprehension skills among eighth-grade students with limited English proficiency. Although traditional reading activities have demonstrated effectiveness in language education, there is limited knowledge regarding their effectiveness specifically for this age group and within this unique context.

- **Justification of the research**

The proposed research on the effectiveness of interactive online activities in enhancing reading skills among eighth-grade students in Basic Education which often contends with low English proficiency. Although interactive activities have demonstrated their effectiveness in language education, there is a notable gap in the existing literature regarding their efficacy specifically for eighth-grade students.

Furthermore, the research is contextualized within the "EEB" Remigio Crespo Toral located in Cayambe city. Furthermore, this contextualization will provide insights that can guide



improvements in language education not only for the students involved but potentially for similar contexts as well.

- **Description of the relationship between the proposal and the research lines of the university**

The research project encompasses the creation of a comprehensive plan that integrates descriptive, instructive, narrative, lyrical-poetic content, and ethical values. These elements are implemented through a reading-writing booklet to facilitate the learning process, with an emphasis on not just what needs to be done but also how to execute it effectively.

The study places significant importance on the processes, activities, actions, methodologies, and procedures required for the seamless integration of interactive activities into the language curriculum. Moreover, the research project has a direct impact on various stakeholders, including students, teachers, and institutions involved in the study. The research findings and recommendations can inform the practices and approaches employed by language educators in comparable professional contexts, leading to enhanced teaching methodologies and improved learning outcomes.

- **General objective**

To implement a Virtual Learning Environment through Moodle, integrating technological tools to boost the reading comprehension skills of sixth graders at “Crespo Toral” School.

Specific objectives

1. Calculate changes in reading comprehension, vocabulary acquisition, and reading fluency among eighth graders after using the virtual environment.



2. Explore how the virtual environment addresses educational gaps by considering factors such as socioeconomic status, prior reading achievement, and access to technology.

- **Description of the variables of the study (independent & dependent)**

Independent Variable:

Virtual Environment: This is the variable represents the technology-based platform Moodle to enhance reading skills and engagement among eighth graders. It also includes the various features, content, and interactive elements that are integrated into the virtual environment.

Dependent Variables:

Reading Skills: These variable measures the level of proficiency in reading among eighth graders. It includes sub-variables related to reading comprehension such as vocabulary acquisition and reading fluency.

Engagement: This variable assesses the degree of involvement, interest, and enthusiasm of eighth graders in reading activities within the virtual environment. Engagement can be evaluated through indicators such as time spent reading, interaction with content, and subjective reports of interest and motivation

- **Description of the research approaches, methods, data collection**

Research Approaches:

Quantitative Approach: This approach involves the collection and analysis of numerical data using statistical methods. It is good for the investigation because it will allow us to quantify



the effectiveness of interactive activities in developing reading skills among Eighth Grade students.

Qualitative Approach: This approach involves the collection and analysis of non-numerical data, such as observations, interviews, and open-ended survey responses. It is good for the investigation because it will allow to gather rich and

So, this project will use both making this as a mixed approach investigation.

- **Research Methods:**

Inductive Method: This method involves collecting data and then developing a theory or explanation based on the patterns and themes that emerge from the data. It is good for the investigation because it will allow generating hypotheses about

the effectiveness of interactive activities in developing reading skills among Eighth Grade students of Superior Basic Education based on the data collected from the pre- test and post-test.

Deductive Method: This method involves developing a theory or explanation first and then collecting data to evaluate the theory. It is good for research because it can use existing literature and theories on language acquisition and teaching methods to develop hypotheses about the effectiveness of interactive activities, and then collect data to assess these hypotheses.

- **Data Collection:**

Empirical Method: This method involves collecting data through direct observation and measurement, rather than relying on personal opinions or assumptions. It is good for the investigation because it will allow the collection of objective data on the effectiveness of interactive activities in developing reading skills among Eighth Grade students through the pre-test and post-test.



Pre-test and Post-test: This data collection method involves administering a test to participants before and after the intervention (in this case, the use of interactive activities). It is good for the investigation because it will allow to compare the reading skills of Eighth Grade students before and after the intervention and determine whether there was a significant improvement.

- **Description of the beneficiaries and their main characteristics.**

The main beneficiaries of the research are the Eighth-Year students' parallel "E" at "Remigio Crespo Toral" school in Cayambe city. These students are between the ages of 11 – 12 and come from both urban and rural areas. The students have a pre-A1 -A1 level of English, which means they have a basic proficiency in the English language, and they may struggle with more advanced concepts.

- **Description of the practical contributions of the proposal.**

Our research project aims to enhance reading skills by implementing a series of innovative educational gamified activities on a virtual platform as well as literacy skills among young children. The practical contributions of this proposal include:

Early Literacy Programs: We will develop and implement early literacy activities for eighth years old students. These will introduce children to the joy of reading, emphasizing phonics, vocabulary development, and comprehension skills.

Accessible Reading Materials: Our project will work to ensure that children in EBB Remigio Crespo Toral have access to a wide range of age-appropriate reading materials.

Practical Impact: Through our project, we anticipate a tangible improvement in the reading abilities and enthusiasm for reading among young children with the aim of technology.



This enhancement in early literacy skills will serve as a strong establishment for their academic success and lifelong learning.



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APPENDIX 7 – Diagnostic Data



**ESCUELA DE EDUCACIÓN BÁSICA
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República
del Ecuador
Ministerio de Educación

AREA:	Foreign Language	SUBJECT:	English	SUB LEVEL	MEDIA
CLASS:	6TH	PARALLEL:	"E"	TRIMESTER	2
TEACHERS	MSc. Santiago Limongi – Lic. Mónica Velalcazar				
GENDRE	Male / Female	AGE: How old are you? / ¿Cuántos años tienes?			

General Instructions:
Read each question carefully, reflect according to the development of skills and evaluation indicators.
The evaluation will be personal nature and will last 60 minutes.

Instrucciones generales:
Lea cada pregunta cuidadosamente, reflexione según el progreso de habilidades y los indicadores de evaluación.
Esta evaluación es de carácter personal y tendrá una duración de 60 minutos.

Reading Comprehension Diagnostic Questions / Preguntas de Diagnóstico de Comprensión Lectora

Pedro and Jimmy are cousins. Pedro lives in a city in Ecuador and Jimmy lives in a village in Peru.
Pedro's city is large. It is larger than Jimmy's village. It has many cars and long streets.
Jimmy's village is small. It has trees, flowers, and animals.
There are more flowers in his village than in the city. The village has narrow streets. The village streets are narrower than the city streets. Both Pedro and Jimmy love the place where they live. They have many friends.



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Read the text. Choose a title for the passage.

- Two countries
- Two cousins
- Traveling aboard
- Important buildings

Where does Pedro live?

- In a village in Ecuador
- In a city in Ecuador
- In a village in Peru
- In a city in Peru

What is mentioned as being larger?

- Jimmy's village
- Pedro's city
- The number of animals in the city
- The number of cars in the village

What do both Pedro and Jimmy love?

- The city's large size
- The village's animals
- The place where they live
- The long streets

In the passage, the word "*narrow*" most likely means: / En el pasaje, la palabra "*narrow*" más probablemente significa:

- Largo
- Bonito
- Estrecho
- Antiguo



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Questions on Previous Experiences and Perceptions / Preguntas sobre Experiencias

Previas y Percepciones

Familiarity with Technology / Familiaridad con la Tecnología:

On a scale of 1 to 5, where 1 is "not at all familiar" and 5 is "very familiar", how would you rate your familiarity with using technological tools in your learning? / En una escala del 1 al 5, donde 1 es "nada familiarizado" y 5 es "muy familiarizado", ¿cómo calificarías tu familiaridad con el uso de herramientas tecnológicas en tu aprendizaje?

- Not at all familiar / Nada familiarizado
- Slightly familiar / Poco familiarizado
- Moderately familiar / Moderadamente familiarizado
- Very familiar / Muy familiarizado
- Extremely familiar / Extremadamente familiarizado

Perception of VLE for Reading Comprehension / Percepción sobre EVA para la

Comprensión Lectora:

On a scale of 1 to 5, where 1 is "not effective at all" and 5 is "very effective", how would you rate the effectiveness of virtual learning environments (like Moodle) for improving your reading comprehension? / En una escala del 1 al 5, donde 1 es "nada efectivo" y 5 es "muy efectivo", ¿cómo calificarías la efectividad de los entornos virtuales de aprendizaje (como Moodle) para mejorar tu comprensión lectora?

- Not effective at all / Nada efectivo
- Slightly effective / Poco efectivo
- Moderately effective / Moderadamente efectivo
- Very effective / Muy efectivo
- Extremely effective / Extremadamente efectivo

Learning Preference / Preferencia de Aprendizaje:

Do you prefer to learn new reading lessons through: / ¿Prefieres aprender nuevas lecciones de lectura a través de:

- Traditional printed texts / Textos impresos tradicionales



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- Educational videos / Videos educativos
- Online interactive games / Juegos interactivos en línea
- Online discussion forums / Foros de discusión en línea



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APPENDIX 7.1 Rubric

Reading Assessment

Name: _____

Date: _____

	0 – 1	2	3	4
Pronunciation of the words	The learner struggles to pronounce the words.	Some words are pronounced correctly	Most words are pronounced correctly	All words are pronounced correctly
Fluency of reading	Struggles to read	Read words for word	Words are grouped together logically	Reading is easy and fluent
Use of punctuation	Punctuation marks are ignored	Punctuation marks are replaced with a breath	Punctuation is observed, but tends to stop at the end of the line	Punctuation is used correctly and efficiently

Total:



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APPENDIX 8 – Lesson Plan for the Proposal

						
1. INFO DATA.						
Area:	Lengua Extranjera – Foreign Language			Subject:	English	
Teachers' Name	Santiago Limongi – Monica Velalcazar					
Target Group:	6 th EGB		Level:	Pre-A1 – A1		
Number of weeks	8 weeks		Total Periods	120 hours		
2. General Objective. To provide students opportunities to practice and improve their English reading skills through engaging online games and activities. By participating in interactive exercises and themed lessons; students will enhance their vocabulary, comprehension, and prediction abilities, fostering a greater proficiency and confidence in reading English texts and online resources.						
4. DEVELOPMENT OF PLANNING UNITS.						
Unit	Objective	Analysis	Design	Development	Implementation in Moodle	Evaluation



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<i>Families and Friends</i>	Introduce vocabulary related to family and friends, and practice predicting pictures from other pictures.	Assess students' prior knowledge about family and friends. Identify students' interest in the topic.	Select images of families and friends for prediction activities. Design games and activities that reinforce family vocabulary and opposite verbs.	Create vocabulary flashcards with pictures of family members and friends. Prepare picture prediction exercises and matching games.	Day 1: Introduction to family vocabulary (mother, father, brother, sister) and friends using pictures and songs. Day 2: Picture prediction activity: show part of the picture and guess who it is (mother, father, etc.). Day 3: Opposite verbs game (e.g., happy/sad, big/small) with actions. Day 4: Reading a picture book about a family, focusing on identifying characters. Day 5: Weekly review with a vocabulary bingo game about family and friends.	Observe student participation in prediction and vocabulary activities. Assess understanding of vocabulary through oral questions and games.
<i>Rhyming Poems</i>	Introduce students to rhyming poems and practice predicting from titles.	Assess students' prior knowledge of rhymes and colors.	Select simple, rhyming poems. Design activities to predict poem	Prepare worksheets with simple rhyming poems.	Day 1: Introduction to Rhymes	Monitor participation in forum discussions and



		Determine students' interest in poems.	content from titles and work with color and noun vocabulary.	Create prediction activities and rhyme identification exercises.	Resource: Upload a video with songs and short rhyming poems. Activity: Interactive quiz to identify rhyming words. Day 2: Predicting from Titles Resource: Upload a rhyming poem with an engaging title. Activity: Forum discussion predicting the poem's content based on the title. Day 3: Coloring Activity Resource: Upload a digital coloring book with descriptions. Activity: Students color online or print and upload their colored pictures. Day 4: Creating Group Poems	collaborative writing. Assess understanding of rhyming and vocabulary through quizzes and peer reviews.
--	--	--	--	--	--	---



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					Activity: Collaborative writing activity using the Wiki tool, where students create simple poems using colors and nouns. Day 5: Reading and Presenting Poems Activity: Students record themselves reading their poems and upload the videos. Assessment: Peer review and feedback on poems using the Workshop module.	
Animal Homes	develop students' ability to identify and describe animal homes, and practice predicting from pictures and titles.	assess students' prior knowledge about animals and their habitats. Identify students' interest in the topic.	Select online, copyright free images of animals and their homes. Design prediction activities and character identification exercises.	Prepare books and images about animals and their homes. Create worksheets with identification and prediction activities.	Day 1: Introduction to Animal Homes Resource: Upload an interactive slideshow about animals and their homes. Activity: Quiz on matching animals with their homes. Day 2: Predicting from Titles	Observe participation in forum discussions and interactive activities. Assess comprehension through quizzes and games.



					Resource: Upload a digital book about animals. Activity: Forum discussion on predicting the book's content from the title. Day 3: Matching Game Activity: Interactive matching game using the H5P tool, where students pair animals with their homes. Day 4: Character Identification Resource: Upload a story about animals with detailed descriptions. Activity: Quiz on identifying characters and their homes from the story. Day 5: Weekly Review	
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					Activity: Memory game using the Quiz module about animals and their homes. Assessment: Short quiz on the week's vocabulary and activities.	
Four Seasons	Teach student's vocabulary related to the seasons and weather, and practice using captions to clarify ideas.	Assess students' prior knowledge about seasons and weather. Identify students' interest in the topic.	Select books and images about the seasons and weather. Design activities to use captions and work with compound nouns.	Prepare illustrated books and worksheets about the seasons. Create activities involving the use of captions and weather-related vocabulary.	Day 1: Introduction to Seasons and Weather Vocabulary Resource: Upload a video about the four seasons and weather. Activity: Interactive quiz on season and weather vocabulary. Day 2: Using Captions to Clarify Ideas Resource: Upload a book about the four seasons with captions.	Monitor participation in forum discussions and interactive activities. Assess understanding of season and weather vocabulary through quizzes and presentations.



					Activity: Forum discussion on how captions help understand the book. Day 3: Matching Weather and Seasons Activity: Interactive matching game using the H5P tool, where students match weather conditions to the correct season. Day 4: Creating Sentences with Compound Nouns Activity: Worksheet where students create sentences using compound nouns (e.g., “raincoat”, “snowman”) and submit online. Day 5: Weekly Review Activity: Presentation assignment where students create a slide about their	
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					favorite season using captions. Assessment: Peer review and feedback on presentations using the Workshop module.	
6. BIBLIOGRAPHY / WEBGRAPHY					7. OBSERVATIONS:	
- Ministerio de educacion, julio de 2016. Teacher’s book. Pre A11 - Muñoz, O. J. (2015). TEACHER’S BOOK - LEVEL 1. Quito: Norma. - Villalba, J., & Rosero, I. (Septiembre de 2012). Ministerio de Educación del Ecuador - MinEduc. Obtenido de http://educacion.gob.ec/wp-content/uploads/downloads/2014/09/01-National-Curriculum-Guidelines-EFL-Agosto-2014.pdf					Dates and timetables would be modified according to students’ competition, among other issues Links and internet tools are not presented in the present lesson plan. However, they can be reached though the VLE.	
DONE BY:						
TEACHER(S): Limongi B. D. Santiago Velalcazar A. Monica E.						



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APPENDIX 9 – Instruments Through Expert Judgment

Certificate of Validation of the Measurement Instruments Through Expert Judgment



TITLE OF RESEARCH: Virtual environment to boost Reading on Sixth Graders

AUTHORS: Velalcazar Mónica – Limongi Santiago

VARIABLE: Use of a virtual environment for boost reading

N	Variables Dimensions / Items	Pertinence 1		Relevance 2		Accuracy 3		Suggestions / Observations
		✓	x	✓	x	✓	x	
1	Frequency of access - How often students access the virtual environment for reading instruction - Multimedia integration	✓		✓		✓		
2	Duration of use - The amount of time students spends engaged with reading activities within the virtual environment. - Synchronous or Asynchronous classes - Content customization (adaptive learning paths)	✓		✓		✓		





Certificate of Validation of the Measurement Instruments Through Expert Judgment

TITLE OF RESEARCH: Virtual environment to boost Reading on Sixth Graders

AUTHORS: Velalcazar Mónica – Limongi Santiago

VARIABLE: Reading proficiency among sixth-grade students

N	Variables Dimensions / Items	Pertinence 1		Relevance 2		Accuracy 3		Suggestions / Observations
		✓	x	✓	x	✓	x	
1	Reading comprehension • Meaning of words • Understanding meaning from context • Making inferences	✓		✓		✓		
2	Reading fluency • Pace • Reading aloud with expression	✓		✓		✓		
3	Vocabulary knowledge • Tenses • Verbs • Linking words	✓		✓		✓		



APPENDIX 10 – Post test (checklist)

Objective: Measure the contribution of the Virtual Environment to Boost Reading on Sinh

Graders at R. Crespo Toral School during the school year 2023-2024

Instructions: Carefully read the aspects of the following checklist and mark an (x) in the box that is related to your criteria.

Teachers: Monica Velalcazar – Santiago Limongi

Class: Sixth basic year “E”

Date:

N	Indicators	Yes	No	Sometimes	Comments
1	Time Spent Reading: students spend at least 6 minutes reading within the virtual environment.				
2	Utilization of Additional Learning Resources: students take advantage of additional resources provided in the virtual environment, such as links to supplementary reading websites, educational videos, or interactive reading-related activities.				
3	Development of Reading Comprehension Skills: students' reading comprehension skills have increased since the implementation of the virtual environment.				
4	Interaction with Multimedia Content: students interact with multimedia content (such as images, videos, or animations) embedded in the virtual environment to enhance their understanding of reading texts.				
5	Vocabulary Development: students have expanded their vocabulary through the use of vocabulary tools integrated into the virtual environment, such as word definitions or identifying synonyms and antonyms.				



6	Autonomy in Reading Selection: students feel more autonomy in their motivation and engagement with additional resources reading by their own.				
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